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## A COMPARATIVE STUDY OF RAT-FLEA DATA FOR SEVERAL SEAPORTS OF THE UNITED STATES

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### Introduction

Bubonic plague, in so far as is known, has never made its appearance along the Atlantic seaboard of the United States, notwithstanding the large ports of entry which have constant communication with plague-infected districts and the presence of rats and rat fleas. On the other hand, plague has appeared in mild epidemic form in San Francisco and Los Angeles, Calif., and New Orleans, La., and has been reported from Seattle, Wash., Galveston and Beaumont, Tex., and Pensacola, Fla., but in these ports climatic conditions are entirely different from those found on the North Atlantic coast. Surg. H. McG. Robertson, of the United States Public Health Service, has suggested (1) that the absence of plague may be accounted for by the effect of cold weather on flea breeding and flea longevity, tending to cause a partial disappearance of rat fleas or to reduce them to a safe minimum during a greater part of the year.

It is a well-known principle in epidemiology that the mere presence of an insect is not sufficient to produce an epidemic of insect-transmitted disease; the insect must also be present in sufficient numbers. There is, therefore, a safe minimum which, when reached, precludes the possibility that an insect-borne disease will assume epidemic proportions, and eventually results in its total disappearance from a community. Robertson's theory is that the seasonal prevalence of rat fleas is too short to permit of a general spread of plague among rats and from rat to man. He points out that, in modern times, plague has not been a real menace north of 35 degrees north latitude, except on the Mediterranean and on the Pacific coast of the United States, and that while it has appeared in England, it has been more or less self-limited.

Robertson's conclusions are as follows:

"(1) Bubonic plague is essentially a disease of hot climates, and, having been introduced into tropical countries, it tends to persist indefinitely.

"(2) Outside of the immediate Tropics, this disease is rather definitely limited in the extent to which it will spread.

"(3) In countries with a mean midwinter temperature of 45° F. or below, bubonic plague is occasional, accidental, and distinctly self-limited, and it seems possible for it to occur in the colder regions only for short periods under unusual conditions."

It was accordingly deemed advisable by the Public Health Service that data concerning prevalence and varieties of fleas found on rats should be obtained for various United States ports. It was felt that the information to be acquired by the study of such data might be expected to have an important bearing upon the possibility of the spread of bubonic plague in case of its introduction and upon the protective and eradicative measures to be planned.

#### Synopsis of Literature on Previous Studies in Various Places

Rat-flea studies of various kinds have been made in a number of places. The results of some of them are, briefly, as follows:

A survey made by Mitzmain (2) in Berkeley and Oakland, Calif., from January, 1909, to December, 1909, gave the following results:

Month	Rats trapped	Fleas collected	Percentage of rats with fleas	Average fleas per rat	Monthly mean temperature, °F.
January	38	93	68.4	2.44	51.0
February	360	1,274	82.0	3.53	50.8
March	409	1,458	89.5	3.56	51.9
April	531	1,127	63.8	2.12	58.0
May	604	1,201	73.6	1.98	58.4
June	739	2,534	75.2	3.42	61.8
July	617	1,497	77.1	2.42	63.8
August	447	1,232	82.3	2.73	61.8
September	317	903	82.6	2.82	62.8
October	321	1,213	86.9	3.77	58.8
November	296	811	81.0	2.77	53.3
December	237	328	70.8	1.38	47.9
Total.	4,916	13,671	—	—	—
Percentage of rats with fleas entire year			77.7		
Average fleas per rat entire year			2.78		

In the Annual Report of the Surgeon General of the United States Public Health Service (3) for the year ended June 30, 1916, it is stated that in New Orleans, La., 1,268 rats were examined for fleas and that 4,394 fleas were obtained, being an average of 3.46 fleas per rat. Of these fleas, 3,256 were *Xenopsylla cheopis*, 88 were *Ceratophyllus fasciatus*, 1,263 were *Leptopsylla musculi*, 125 were *Ctenocephalus canis*, and 47 were *Pulex irritans*. The report states:

Two conditions of considerable interest have developed during the year. One is the marked rise in the number of plague rats during May, and more particularly in June, 1916, contemporaneously with a marked increase in the number of rat fleas (particularly *Xenopsylla cheopis*) per rat. It is believed that there is a distinct relationship between these two phenomena.

The figures for May and June, 1916, are as follows:

Date	Mus norvegicus		Mus rattus and alexandrinus	
	X. cheopis	C. fas- ciatus	X. cheopis	C. fas- ciatus
<b>Week ended—</b>				
May 6	2,763	0.526		
May 13	1,033	—	1,500	—
May 20	3,000	—	1,500	—
May 27	2,025	.050	4 <sup>4</sup>	—
June 3	2,666	1,000	4,000	—
June 10	3,609	.024	8,000	—
June 17	7,666	—	1,570	—
June 24	6,930	—	7,833	—
Six days ended June 30	6,148	—	3,000	—

The Annual Report of the Surgeon General of the Public Health Service (4) for the fiscal year ended June 30, 1917, states that in New Orleans in June, 1917, the average number of fleas per rat was 3, as against 7 in June, 1916, a reduction of 4 fleas per rat. This was accompanied by a reduction in the number of plague-infected rats caught. *Xenopsylla cheopis* continued to be the predominating flea.

The Annual Report of the Surgeon General (5) for the fiscal year ended June 30, 1921, states that in New Orleans there were 2,144 live rats examined for fleas, with an average of 3.3 fleas per rat, and that rat plague was present.

In New Orleans during the fiscal year 1922 (6) there were 3,839 live rats examined for fleas and 17,559 fleas were taken, of which 6,566 were *Xenopsylla cheopis*, 10,269 were *Leptopsylla musculi*, and 724 were *Ctenocephalus canis*, making an average of 4.83 per rat. Figures by months are as follows:

Mean	Mean tem- pera- ture	Total rats exam- ined	Total fleas exam- ined	Fleas per rat	Mean	Mean tem- pera- ture	Total rats exam- ined	Total fleas exam- ined	Fleas per rat
<b>1921</b>									
July	83.1	227	963	4.3	1922				
August	84.2	183	747	4.8	January	83.5	194	586	3.0
September	83.4	None.	None.	None.	February	62.2	251	979	3.9
October	71.2	41	147	3.6	March	62.3	606	2,895	4.8
November	66.6	159	315	1.9	April	72.6	728	3,534	4.9
December	60.8	83	260	3.1	May	75.7	808	4,301	4.8

The Annual Report of the Surgeon General for the fiscal year ended June 30, 1921 (5), states that in Pensacola, Fla., there were 36 plague-infected rats found during that fiscal year. The average number of fleas per rat for the year was 11.3. The total number of fleas was 8,603, of which 4,640 were *Xenopsylla cheopis*, 1,989 were *Pulex irritans*, 1,101 were *Ctenocephalus canis* or *felis*, 657 were *Ceratophyllus fasciatus*, and 216 were *Leptopsylla musculi*.

The Annual Report of the Surgeon General for the fiscal year ended June 30, 1922 (6), states that in Galveston, Tex., during that year the average number of fleas per rat was 24.66, of which *Xenopsylla cheopis* predominated and that *Ceratophyllus fasciatus* was not encountered.

A rat flea survey was made in Providence, R. I. (7, 8), by Robinson in 1912 from July through to December. Three hundred and forty-two rats were examined, 57 per cent of which were found to harbor fleas. A total of 2,053 fleas were taken, of which 75 per cent were *Xenopsylla cheopis*, 22 per cent were *Ceratophyllus fasciatus*, 2.5 per cent were *Leptopsylla musculi*, and 0.5 per cent were *Ctenocephalus canis*. The average number of fleas per rat from July to September was 10.2, and from October to December the average was 3.7. For a restaurant where 40 rats were taken, the average was 36 fleas per rat. The largest number of fleas obtained from one rat was 300. The rats when caught were carried to the laboratory without inclosing the cages in canvas bags to prevent the possible escape of fleas.

In a report on rat fleas in Suffolk and North Essex, England, Strickland and Merriman (9) did not encounter any *Xenopsylla cheopis*, but *Ceratophyllus fasciatus* was common (60 per cent). Thirty-eight per cent of the fleas were *Ctenophthalmus agyrtes*, a flea of the field mouse. Some of their findings were as follows: In all, 822 rats were examined. The average number of fleas per rat was almost exactly 4, 3,293 fleas being collected. There was a definite seasonal variation in the number of fleas per rat and in the percentage of rats infested with fleas. There was a corresponding variation in the maximum and minimum temperatures in grass thermometer readings and in the atmospheric humidity.

Newstead and Evans (10) report after a rat-flea survey of Liverpool, England, that 944 rats were caught with 2,339 fleas, making an average of 2.47 fleas per rat. Of these fleas, 1,905 were *Ceratophyllus fasciatus* and 73 were *Xenopsylla cheopis*. Of the latter, 56 were taken from the same house. The number of fleas per rat was greatest during the summer months, but the curve of frequency could not be correlated in detail with that of the average temperature. In addition to the above, 469 rats having 716 fleas were caught on ships in the port. Of these fleas, 489 were *Xenopsylla cheopis*, 219 were *Ceratophyllus fasciatus*, and 8 were *Leptopsylla musculi*.

It is stated (11) that in Belgaum, India, plague can assume epidemic proportions only from July to November, when rat fleas are most prevalent, averaging during July, August, and September, 18 fleas per rat, whereas in nonepidemic periods the average is but 4 or 5 fleas per rat.

The results of some of the studies bearing on the subject of life histories and longevity of fleas are briefly as follows:

With reference to the influence of saturation deficiency and of temperature on the course of epidemic plague, Brooks (12) summarizes his findings as follows:

"1. Plague does not maintain itself in epidemic form when the temperature rises above 80° F., accompanied by a saturation deficiency of over 0.30 of an inch.

"2. Plague epidemics are rapidly brought to an end in the presence of a high saturation deficiency, even when the mean temperature throughout and after the termination of the epidemic has been considerably below 80° F.

"3. Plague epidemics may commence to increase in intensity when the mean temperature is well above 80° F., provided that the saturation deficiency is below 0.30 of an inch.

"4. In some districts in India and in certain tropical islands (e. g., Java, Mauritius) where the climatic conditions are at all times of the year favorable to the incidence and spread of plague, the disease may occur indifferently at all seasons."

Bacot (13) has shown that to induce the ova of *Xenopsylla cheopis* to hatch a temperature of over 60° F. is apparently necessary, and that *Ceratophyllus fasciatus* can hatch at an average temperature of 41° F., but that *Pulex irritans* can not. He states that in the larval stage *Xenopsylla cheopis* and *Pulex irritans* can not survive below 40° F., but that *Ceratophyllus fasciatus* is not only able to endure this temperature, but apparently finds it quite suited to its needs. In the pupal stage, at 40° to 43° F., the results were similar to those obtained with the larva. *Pulex irritans* seems to have a greater endurance in this stage than *Xenopsylla cheopis*. In the adult stage all species are more nearly alike. Bacot further states that at 45° to 50° F., with nearly saturated air, fleas can live for many days unfed—*Pulex irritans* for 125 days, *Ceratophyllus fasciatus* for 95 days, *Xenopsylla cheopis* for 35 days, *Ctenocephalus canis* for 58 days, and *Ceratophyllus gallinae* for 127 days. Kept in the ice box and fed on a natural host, *Pulex irritans* may live for upward of 513 days, *Ceratophyllus fasciatus* for 106 days, *Xenopsylla cheopis* for 100 days. Under natural conditions they would probably live longer. *Ctenocephalus canis* lived 234 days and *Ceratophyllus gallinae* lived 345 days. Allowing for the longest recorded time that an unfed adult lives, there is no difficulty in accounting for active adult fleas being found, under favorable situations, where there have been no hosts for considerable periods—*Ceratophyllus fasciatus* for 22 months, *Pulex irritans* for 19 months, *Xenopsylla cheopis* for 10 months, *Ctenocephalus canis* for 18 months, and *Ceratophyllus gallinae* for 12 months.

In a careful study made by Bacot and Martin (14) on the respective influence of temperature and moisture upon the survival of the

rat flea (*Xenopsylla cheopis*) away from its host and without any other source of food they have drawn the following conclusions:

"1. The survival of fleas (*Xenopsylla cheopis*) apart from their host is approximately in inverse proportion to the saturation deficiency of the air, provided the temperature and air movement are constant. In other words, it is proportionate to the rate at which they lose water.

"2. Under similar conditions but with constant saturation deficiency their length of life is reduced to between one-half and two-thirds by 10° C. rise in temperature. Compared with the effect of saturation deficiency, that of temperature upon the longevity of fleas is, within the range of climatic conditions over the greater part of India, a smaller one.

"3. A variation in saturation deficiency from 5 millimeters to 35 millimeters, such as occurs in the plains of northern India at different seasons, would accordingly shorten the average duration of life of wandering rat fleas in the proportion of 15 to 1. As a rise in mean temperature occurs simultaneously with the increase in saturation deficiency and may amount to a difference of 20° C. between January and June, this would reduce the length of life of wandering fleas to about one-third. The effect of saturation deficiency and increased temperature will be additive and would go a long way to explain some of the climatological features of the epidemic."

Strickland (15) places the time necessary for the complete development of *Ceratophyllus fasciatus* from egg to imago as being 84 days, or seven days for the egg to hatch, 60 days in the larval stage, and 17 in the pupal stage.

Investigations in India show (16) that egg laying and the stages of development into larvae, pupae, and adults all show marked seasonal variation, most active when weather is wet and temperature moderate, least active under dry and hot conditions. Atmospheric humidity seems to be more important than temperature in determining this seasonal variation. The life of the adult flea is longer in cool and moist atmosphere than under hot and dry conditions.

Nicoll states (17) that the larval and nymphal stages of *Ceratophyllus fasciatus* can live for much longer periods than normal under certain conditions, from two to six weeks normally to over a year.

Investigations on plague in India (18) show that *Xenopsylla cheopis* can live for at least 41 days when its food supply is derived from a rat. It can survive for 27 days when fed on human blood. Under the most favorable conditions from 21 to 22 days were necessary for the completion of the life cycle. A high mean temperature restrains the adult from laying eggs and is also deleterious to the development of the eggs into larvae.

Thompson (19) reports that in Australia, March, April, and May were the months in which plague was most active in both rat and

man, i. e., the height of the epidemic period coincided nearly with the epizootic period.

In a report of plague investigations in India it is stated that the longest life of a flea is in August, when the humidity is over 80 per cent, whereas the shortest life is in April and first half of May, when the humidity is about 40 per cent or less. Fleas were found to live about five times longer in August than in April under the conditions observed in the experiment.

Major Cragg (20) has shown that in those parts of India which do not have epidemics of plague the predominating rat flea is not *Xenopsylla cheopis*, but other species of *Xenopsylla*, either *Xenopsylla astia* or *Xenopsylla brasiliensis*. *Xenopsylla astia* is also the common rat flea of Colombo, and it is well known that the city enjoys a relative immunity to plague.

Chick and Martin (21) state that *Xenopsylla cheopis* and *Ceratophyllus fasciatus* are the species of rat fleas which, when hungry, readily bite man. There is no reason to suppose that, other things being equal, *Ceratophyllus fasciatus* would not be as efficient an agent in the transmission of plague from rat to man as *Xenopsylla cheopis* has been shown to be in India.

That rat fleas will bite man has been demonstrated by various investigators, including Gauthier and Raybaud, Tidswell, Tiraboschi, Liston, the British Indian Plague Commission, Wherry, and McCoy and Mitzmain (22). The last three proved that fleas of the California ground squirrel would also bite man.

#### Scope of Present Study and Method of Procedure

To date, surveys to obtain fleas from live rats have been made by officers of the Public Health Service in cooperation with the local health authorities and with the approval of the State health authorities at the ports of Boston, Mass., New York, N. Y., and New Orleans, La. The work in the field in each of these surveys consisted of the trapping of live rats and the collection at the local laboratory of the fleas from these rats. The fleas have been properly preserved and later identified as to species. Care was taken to make a careful record of the location (street and number) at which each rat was caught, so that the corresponding flea data might be properly recorded for subsequent study.

In New York City the rat survey started April 18, 1923, and continued until February 28, 1925. The work of trapping the rodents was done by the rat trappers of the New York City health department. The collecting of the fleas was done by the laboratory personnel of the health department, the material thus obtained being turned over to the Public Health Service for identification.

The survey in Boston commenced December 1, 1922, and continued to November 10, 1923. The work of trapping the rodents was done by two experienced rat trappers of the Public Health Service until September 10, 1923, after which date the trapping of live rats was done by rat trappers in the employ of the Boston health department. The rats were delivered in the cages in which they were caught to the laboratory of the Boston quarantine station, where the fleas were collected from them by a Public Health Service bacteriologist. During the winter months this latter work was conducted at the Bussey Institute of Entomology, owing to transportation difficulties involved in reaching the quarantine station.

The New Orleans survey commenced November 1, 1922, and continued to June 15, 1923. This work was carried out entirely by Public Health Service personnel at the plague suppressive station then being maintained in that city.

The trapping of the rats was done by means of large wire cage traps which were placed in considerable numbers in the various localities or zones from which it was desired to obtain the rats. An effort was made to obtain what might be termed representative samples of the rat population. The rats after being trapped were delivered to the laboratory in the traps in which originally caught, care being taken to disturb the rat or rats in each cage as little as possible, so as not to affect the flea distribution and prevalence on the rats. The traps were not inclosed in canvas bags while being taken to the laboratory.

The method of obtaining fleas from a rat after delivery to the laboratory was as follows:

The rat is removed from the cage with any suitable forceps and is then killed by being caught around the neck with a hysterectomy forceps. This is done while holding the rat over a white enameled tray about 2 feet square containing about an inch of water. The rat is immediately suspended over the center of the tray and allowed to remain there for 24 hours. As the rat gradually becomes cold after death, the fleas leave it in search of another host. Since the leap or hop of a flea very rarely exceeds 8 or 10 inches, the fleas fall upon the water in the tray and float upon the surface. As all the fleas have left the dead rat at the end of the 24-hour period, they are easily collected from the surface of the water at that time with the aid of a magnifying glass. The fleas are then placed in a small bottle containing alcohol and labeled with the rodent serial number and other pertinent data. At intervals the vials thus obtained were shipped to the senior author of this report at Philadelphia, Pa., and their contents studied.

The Public Health Service is indebted to the health departments of the cities of New York and Boston for their assistance in making

the work possible, and to Dr. William Pepper, dean of the Medical School, and Dr. Allen J. Smith, professor of pathology of the University of Pennsylvania, for their kindness in furnishing laboratory space to carry on the determination of the material collected. Acknowledgment is also due to the Bussey Institute of Entomology of Harvard University for laboratory space furnished during the winter of 1922-23.

#### Results of Present Studies

##### NEW YORK

The survey in New York extended from April 18, 1923, to February 28, 1925. The number of rats caught each month varied. Four thousand seven hundred and fifty-six rats were trapped, of which 1,426, or 30 per cent, harbored fleas. The total number of fleas collected was 4,408, of which 70.7 per cent were *Ceratophyllus fasciatus* and 23.4 per cent were *Xenopsylla cheopis*. The average number of fleas per rat for the entire period was 0.93. *Xenopsylla cheopis* was not confined to the water front, but was taken well within the city. However, the city of New York in the area trapped is not wide and a rat can travel across it with ease from one water front to the other. The largest number of fleas obtained from one rat was 38, all of which were *Ceratophyllus fasciatus*.

Table 1 gives information in detail by months. It will be noted that at no time did the number of rats having fleas exceed 50.3 per cent of those trapped, and that at no time did the monthly average number of fleas per rat reach 3.0. During the year 1923 the average number was 1.6, and during the year 1924 the average number was 0.5.

TABLE 1.—Data relative to rat-flea survey in New York City (April 18, 1923, to February 28, 1925)

	1923									
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Total rats caught.....	65	292	138	326	282	324	250	133	106	
Number having fleas.....	29	147	68	132	118	156	105	63	58	
Per cent having fleas.....	44.6	50.3	49.3	40.5	41.8	48.3	42.0	48.8	35.0	
Total fleas taken.....	95	618	241	620	367	414	434	203	153	
<i>C. fasciatus</i> .....	95	611	241	346	192	156	114	107	106	
<i>X. cheopis</i> .....	0	7	16	252	62	231	313	32	46	
<i>L. musenell</i> .....	0	0	0	17	86	2	0	14	0	
<i>Ct. canis</i> or <i>felis</i> .....	0	0	0	5	27	25	7	0	1	
<i>Echid. gallinacea</i> .....	0	0	0	0	0	0	0	0	0	
Average fleas per rat.....	1.46	2.11	1.96	1.90	1.30	1.28	1.74	1.52	0.92	
Per cent <i>C. fasciatus</i> .....	100.0	98.8	94.0	55.8	52.5	37.7	26.2	52.7	70.0	
Per cent <i>X. cheopis</i> .....	0.0	1.1	6.0	40.6	16.8	55.8	72.1	40.4	30.0	

TABLE 1.—Data relative to rat-flea survey in New York City (April 18, 1923, to February 28, 1925)—Continued

	1924											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total rats caught.....	18	201	256	303	213	310	266	45	140	108	210	303
Number having fleas.....	9	22	31	29	76	108	66	8	51	22	37	33
Per cent having fleas.....	50.0	10.9	12.1	9.6	35.7	34.8	24.6	17.8	36.4	20.4	17.6	10.9
Total fleas taken.....	13	31	36	34	158	446	209	19	90	37	60	46
<i>C. fasciatus</i> .....	10	29	33	31	139	430	189	14	85	32	45	45
<i>X. cheopis</i> .....	0	0	0	1	0	1	4	1	0	2	14	0
<i>L. musculi</i> .....	3	2	3	2	19	15	14	0	0	1	0	1
<i>Ct. canis or felis</i> .....	0	0	0	0	0	0	1	4	4	2	1	0
<i>Echid. gallinacea</i> .....	0	0	0	0	0	0	1	0	1	0	0	0
Average fleas per rat.....	0.72	0.15	0.14	0.11	0.74	1.44	0.78	0.42	0.64	0.34	0.29	0.15
Per cent <i>C. fasciatus</i> .....	76.9	93.6	91.7	91.2	88.0	96.4	90.4	73.7	94.4	86.5	75.0	97.8
Per cent <i>X. cheopis</i> .....	0.0	0.0	0.0	2.8	0.0	0.2	1.9	5.3	0.0	5.4	23.3	0.0

	1925		Total
	Jan.	Feb.	
Total rats caught.....	193	214	4,756
Number having fleas.....	13	43	1,426
Per cent having fleas.....	6.7	20.1	30.0
Total fleas taken.....	13	55	4,408
<i>C. fasciatus</i> .....	12	54	3,117
<i>X. cheopis</i> .....	0	0	1,032
<i>L. musculi</i> .....	1	1	181
<i>Ct. canis or felis</i> .....	0	0	77
<i>Echid. gallinacea</i> .....	0	0	2
Average fleas per rat.....	0.07	0.26	0.93
Per cent <i>C. fasciatus</i> .....	92.3	98.8	70.7
Per cent <i>X. cheopis</i> .....	0.0	0.0	23.4

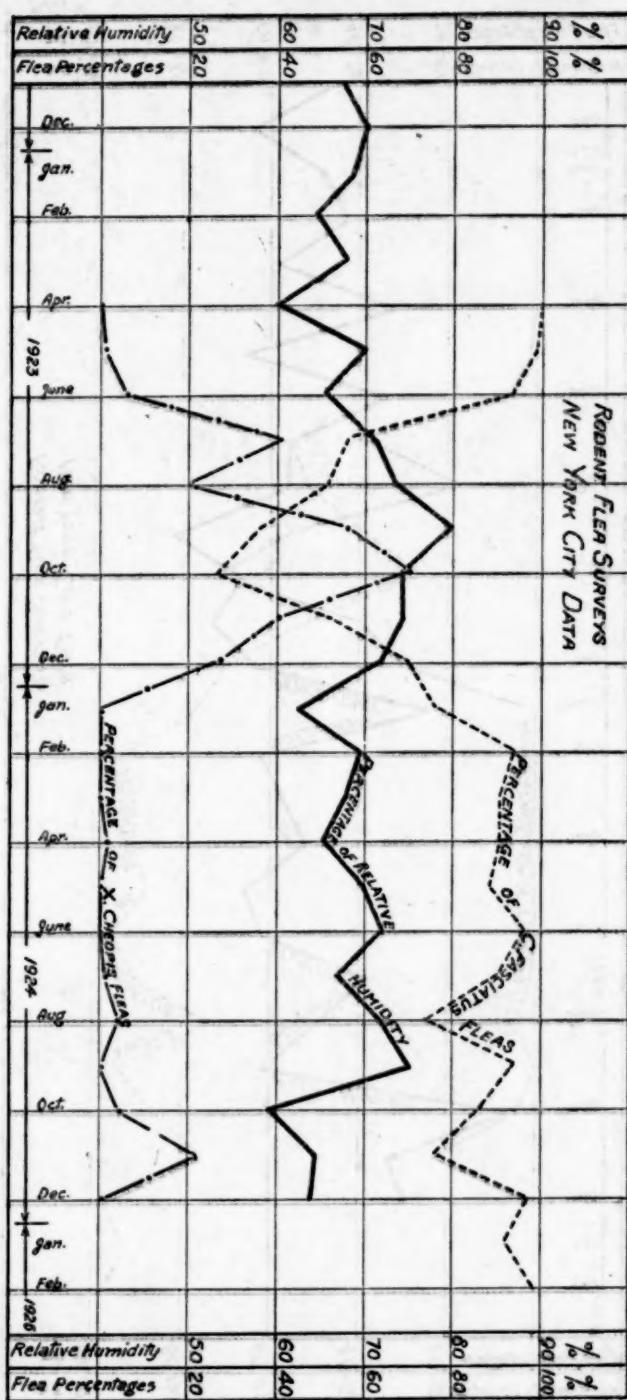
## Summary

Year	Total rats	Total fleas	Average fleas per rat	<i>X. cheopis</i>	Per cent <i>X. cheopis</i>
1923.....	1,976	3,161	1.60	1,000	31.6
1924.....	2,373	1,179	0.50	23	1.9

*Xenopsylla cheopis* furnished more than 50 per cent of the fleas during September and October, 1923, after which time their number rapidly decreased to practically a negligible quantity and remained low during the entire year 1924 except for the month of November when there was a rise to 23.3 per cent of the monthly catch. On the other hand, during 1924, *Ceratophyllus fasciatus* increased in numbers in May, June, and July, just as it did in 1923, but the numbers of this species were comparatively few during the remainder of the year. Only one species of the genus *Xenopsylla* was encountered during the survey, namely, *Xenopsylla cheopis*. In Charts 1 and 2 an attempt is made to show a correlation between atmospheric humidity and the prevalence of *Xenopsylla cheopis*. It is to be noted that from July to November, 1923, the months during which *Xenopsylla cheopis* was most prevalent, the relative humidity remained between 70 and 80, although the average temperature during October had dropped to

1919

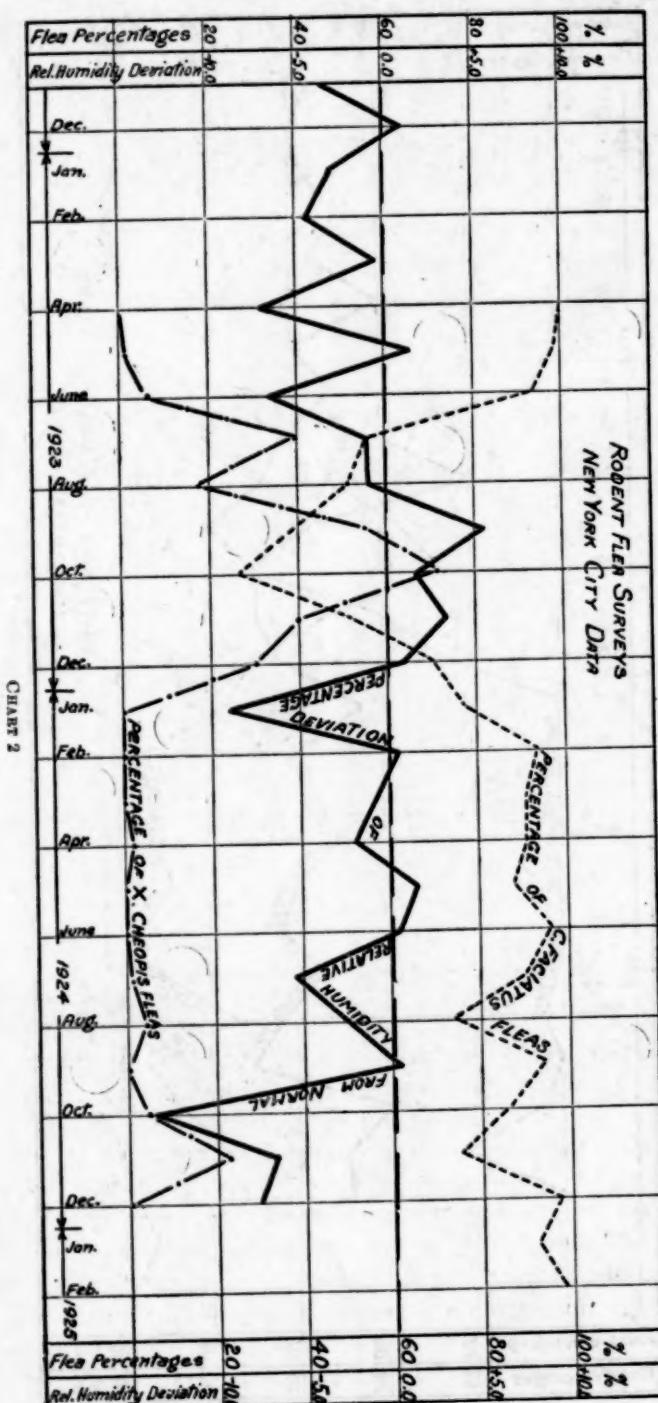
September 11, 1923



CHAPTER I

September 11, 1925

1920



56° F. During the entire year 1924 the relative humidity was comparatively low. The highest average was 75 in September, but during most of the year it deviated below the normal. Except for a slight rise in the number of *Xenopsylla cheopis* collected in November, this species can practically be disregarded during 1924.

#### BOSTON

In Boston (Table 2) the study extended from December 1, 1922, to November 13, 1924. One thousand five hundred and twenty-four rats were caught, of which 648, or 42.5 per cent harbored fleas. The average number of fleas per rat was well under 1.0 until June, when

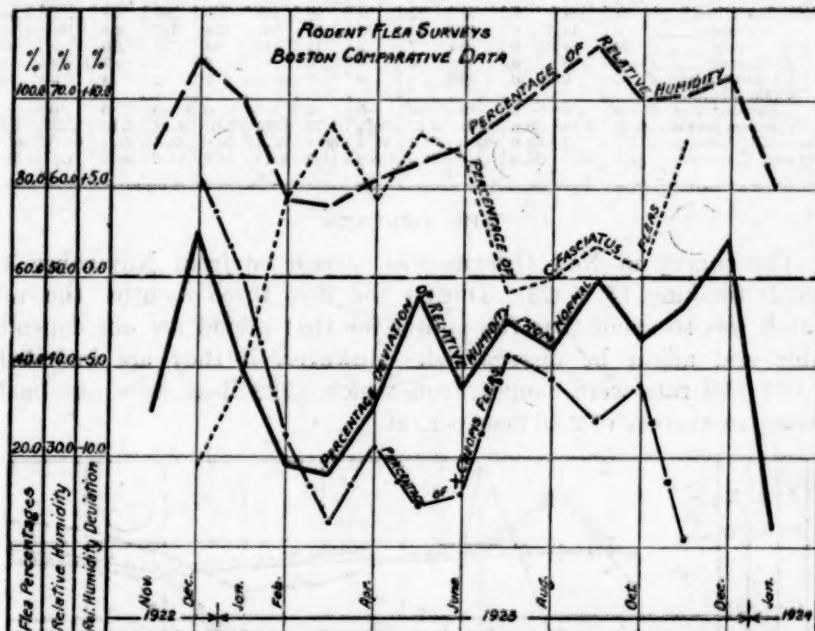


CHART 3

it reached 1.37 and remained above 1.0 up to and including November. At no time did the average reach 3.0 fleas per rat. The average number of fleas per rat for the entire period was 1.25. The total number of fleas obtained was 1,901. The per cent of *Xenopsylla cheopis* for the entire period was 33.2. The curve representing *Xenopsylla cheopis* was not so consistent as that for New York, although it follows more or less closely the curve representing relative humidity (Chart 3). The months of December and January show a high percentage of *Xenopsylla cheopis*. They then diminished in numbers until the season that one would expect to find them most prevalent, namely, June to October, although they never reached 50 per cent of the total catch. In November they had dropped to only 1.8 per cent of the catch, *Ceratophyllus fasciatus*

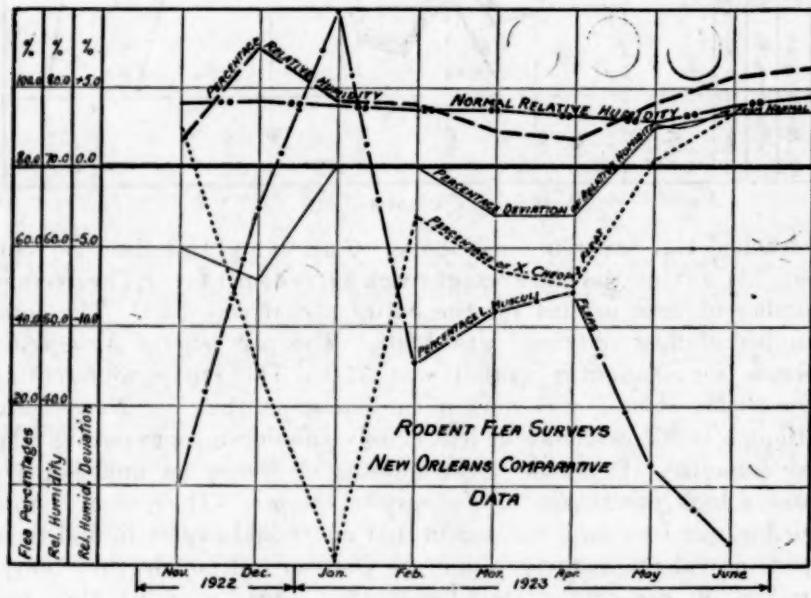
remaining comparatively high. The only member of the genus *Xenopsylla* encountered was *cheopis*. The greatest number of fleas obtained from one rat was 67, 10 of which were *Xenopsylla cheopis* and the remainder *Ceratophyllus fasciatus*.

TABLE 2.—Data relative to the rat-flea survey in Boston, Mass. (December 1, 1922, to November 10, 1923)

	1922		1923											Total
	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.		
Total rats caught.....	41	172	124	128	56	94	70	118	215	208	208	90	1,524	
Number having fleas.....	5	26	7	25	20	18	25	81	89	132	149	71	78.8	648
Per cent having fleas.....	12.2	15.1	5.6	19.5	35.6	19.2	35.8	68.6	41.4	63.4	71.7	78.8	42.5	
Total fleas taken.....	34	118	8	44	32	58	96	282	230	288	595	111	1,901	
<i>C. fasciatus</i> .....	6	44	6	42	25	53	83	162	138	197	368	101	1,225	
<i>X. cheopis</i> .....	28	74	2	2	7	5	11	119	88	78	216	2	632	
<i>L. musculi</i> .....	0	0	0	0	0	0	0	1	2	1	7	8	19	
<i>Ct. canis</i> or <i>felis</i> .....	0	0	0	0	0	0	0	0	2	12	4	0	23	
<i>Ctenophthalmus pseudagyrtes</i> .....	0	0	0	0	0	0	2	0	0	0	0	0	2	
Average fleas per rat.....	0.83	0.69	0.6	0.34	0.57	0.62	1.37	2.39	1.07	1.38	2.86	1.23	1.25	
Per cent <i>C. fasciatus</i> .....	17.6	37.3	75.0	95.5	78.1	91.4	86.4	57.4	60.0	68.4	61.8	91.0	64.4	
Per cent <i>X. cheopis</i> .....	82.4	62.7	25.0	4.5	21.9	8.6	11.4	42.2	38.2	27.0	36.3	1.8	33.2	

#### NEW ORLEANS

The survey in New Orleans was carried on from November 1, 1922, to June 15, 1923. During the first three months the rat catch was so small that the figures for that period are not dependable and might be disregarded. However, if they are included, 1,661 live rats were caught, from which 3,928 fleas were obtained, being an average of 2.36 fleas per rat.



Two thousand eight hundred twenty-nine fleas, or 72.0 per cent, were *Xenopsylla cheopis*; 1,049 fleas or 26.6 per cent were *Leptopsylla musculi*, while there were only 18 *Ceratophyllus fasciatus*, or 0.5 per cent. These figures agree very well with those obtained during previous surveys in New Orleans, already mentioned in this report. Detailed information by months concerning the New Orleans survey is to be found in Table 3. From Chart 4 it may be noted that the variations in the percentages of *Xenopsylla* correspond fairly closely to variations in atmospheric humidity.

TABLE 3.—*Data relative to the rat flea survey in New Orleans, La. (November 1, 1922, to June 15, 1923)*

	1922		1923						Total
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	
Total rats caught	33	4	1	289	454	309	367	204	1,001
Number having fleas	33	4	1	289	417	191	320	189	1,444
Per cent having fleas	100	100	100	100	91.8	61.8	87.2	92.6	86.9
Total fleas taken	154	29	12	941	1,023	174	909	686	3,928
<i>C. fasciatus</i>	0	0	0	4	12	0	2	0	18
<i>X. cheopis</i>	138	9	0	642	556	89	750	645	2,829
<i>L. musculi</i>	16	20	12	288	448	84	142	39	1,049
<i>Ct. canis</i> or <i>felis</i>	0	0	0	2	7	0	9	2	20
<i>Echid. gallinacea</i>	0	0	0	5	0	1	6	0	12
Average fleas per rat	4.67	7.25	12.0	3.26	2.25	0.56	2.48	3.36	2.36
Per cent <i>C. fasciatus</i>	0.0	0.0	0.0	0.4	1.2	0.0	0.2	0.0	0.5
Per cent <i>X. cheopis</i>	89.6	31.0	0.0	68.2	54.4	51.1	82.6	94.0	72.0
Per cent <i>L. musculi</i>	10.4	69.0	100	30.6	43.8	48.3	15.6	5.7	25.6

#### DATA BY ZONES

In tables 4, 5, and 6 the flea survey data obtained from New York City, Boston, and New Orleans are tabulated by zones, although for New Orleans certain of the data are lacking. The zones were determined by dividing the cities into sections, which seemed to be logical arbitrary divisions. Examination of these tables shows that none of the rats from which the fleas were obtained was trapped on vessels except in New Orleans. In New York City, 26.8 per cent of the rats trapped on docks or wharves had fleas; 30.9 per cent of those trapped in warehouses adjacent to docks or wharves had fleas, and 49.5 per cent trapped elsewhere in the city had fleas. Similarly in Boston, 30.8 per cent of the rats trapped on wharves or docks carried fleas; 30.9 per cent of those trapped in warehouses adjacent to the waterfront had fleas, 57.3 per cent of those trapped elsewhere in the city carried fleas, and 25.6 per cent of the rats trapped in the suburbs had fleas.

TABLE 4.—New York City flea survey data by zones

	Zone 1					Total
	1	2A	2B	3	4	
Total rats	3,660	488	608			4,756
Rats having fleas	974	151	301			1,426
Per cent having fleas	26.8	30.9	49.5			30.0
Total fleas	2,673	629	1,106			4,408
C. fasciatus	1,874	431	812			3,117
X. cheopis	578	179	275			1,032
Other fleas	222	18	20			290
Average fleas per rat	0.73	1.29	1.82			0.98
Per cent C. fasciatus	70.2	68.6	73.5			70.7
Per cent X. cheopis	21.7	28.5	24.9			23.4

<sup>1</sup> Zones:

Zone 1: Vessels, foreign and coastwise, entering the port.

Zone 2A: The wharves and docks of the waterfront.

Zone 2B: The warehouses along the water front.

Zone 3: The remainder of the city, except the suburbs or country portion.

Zone 4: The suburbs or country portion.

TABLE 5.—Boston flea survey data by zones

	Zone 1					Total
	1	2A	2B	3	4	
Total rats	536	178	697	113		1,524
Rats having fleas	165	55	399	29		648
Per cent having fleas	30.8	30.9	57.3	25.6		42.5
Total fleas	478	124	1,233	66		1,901
C. fasciatus	317	93	752	63		1,225
X. cheopis	144	30	457	1		632
Other fleas	17	1	24			44
Average fleas per rat	0.89	0.70	1.77	0.58		1.25
Per cent C. fasciatus	66.3	75.0	60.9	95.4		64.4
Per cent X. cheopis	30.1	24.2	37.2	1.5		33.2

<sup>1</sup> Zones defined in Table 4.

TABLE 6.—New Orleans flea survey data by zones

	Zone 1					Total
	1	2A	2B	3	4	
Total rats	12					1,661
Rats having fleas	1	1	80	1,091	277	1,444
Per cent having fleas	8.3					36.9
Total fleas	1	9	213	3,336	369	3,928
C. fasciatus		1	5	10	2	18
X. cheopis		1	46	2,531	251	2,829
L. musculi	1	7	161	767	113	1,049
Other fleas				1	28	32
Average fleas per rat	0.08					2.36
Per cent C. fasciatus		11.1	2.5			0.5
Per cent X. cheopis		11.1	21.6	75.8	68.0	72.0
Per cent L. musculi	100.0	77.8	75.7	23.0	30.6	26.6

<sup>1</sup> Zones defined in Table 4.

It is to be noted that for New Orleans, in zones 2A and 2B, consisting of the docks and warehouses adjacent, at least 75 per cent of the fleas obtained from the rats were *Leptopsylla musculi*, whereas for the remainder of the city and suburbs more than 68 per cent of the

fleas obtained were *Xenopsylla cheopis*. This variation in prevalence by zones was not found in New York and Boston, where *Ceratophyllus fasciatus* (replaced by *Leptopsylla musculi* in New Orleans) was the species most commonly found.

#### OTHER ECTOPARASITES ENCOUNTERED

No *Pulex irritans* were taken either in the New York or Boston surveys. It is a species of flea rarely found in the northeastern part of the United States, but common on the Pacific coast, and has also been taken from rats in New Orleans and Pensacola.

In addition to the fleas collected and reported in Tables 1 and 2, the following parasites were taken:

*Polyplax spinulosa* Burmeister (the common rat louse).

*Philandesia foxi* Ewing (one specimen from *Mus norvegicus*, New York City).

*Laelaps echidninus* Berlese (the common rat mite).

*Laelaps hawaiiensis* Ewing (New York City and New Orleans from *rattus*).

*Bdella cardinalis* Banks (New York City. Accidentally on *M. norvegicus*).

For the identifications of the above ectoparasites acknowledgment is due Dr. H. E. Ewing, of the Bureau of Entomology, United States Department of Agriculture.

#### Conclusion

The authors do not feel that it is advisable to draw any definite conclusions from the surveys. It is quite significant, however, that in New Orleans, where plague has actually existed, *Xenopsylla cheopis* is the predominant rat flea present during every month of the year, and that *Ceratophyllus fasciatus* is practically absent while, in the northern cities under study, where plague has never existed, *Ceratophyllus fasciatus* is the predominant rat flea, *Xenopsylla cheopis* appearing in greater numbers only during a few months of the year. It is also significant that in New Orleans the average number of fleas per rat is consistently high as compared with the average number in New York and Boston. It is also felt that temperature and humidity are important factors in the average number of fleas per rat as well as in the numbers of *Xenopsylla cheopis*.

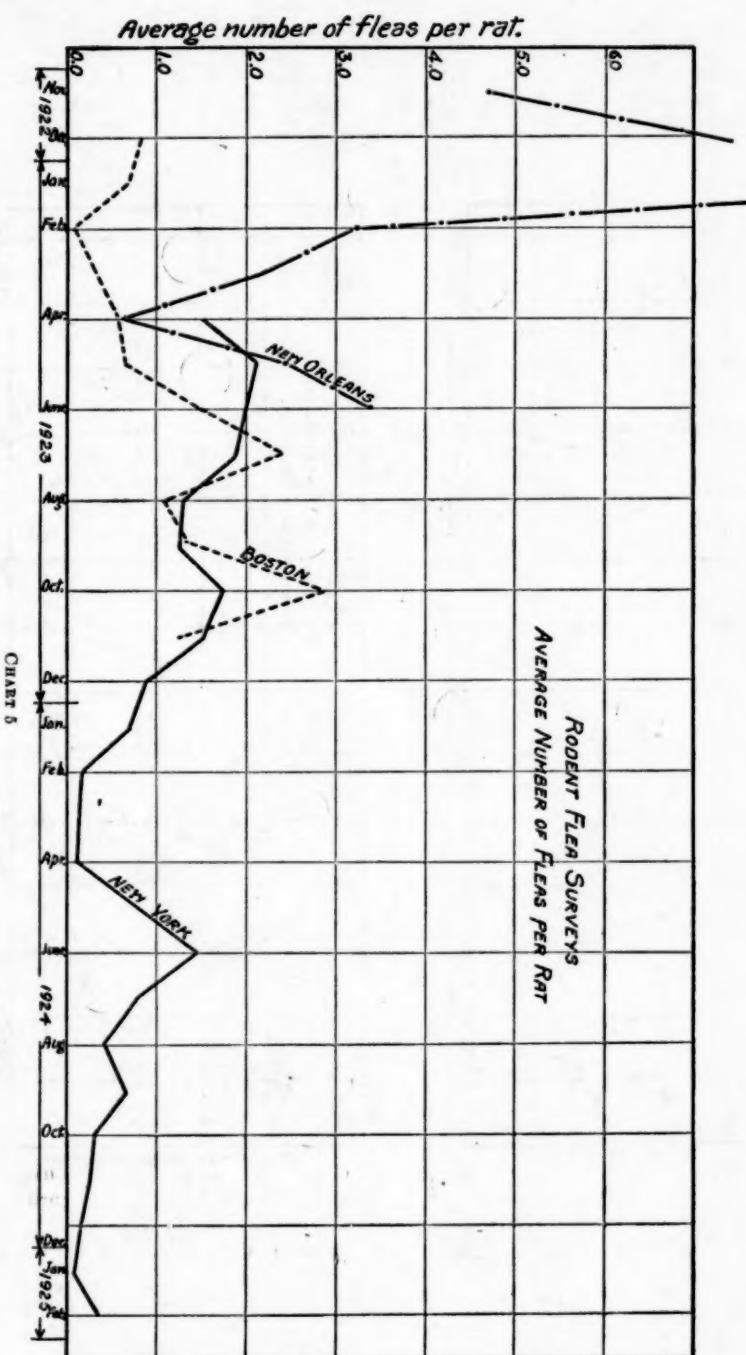
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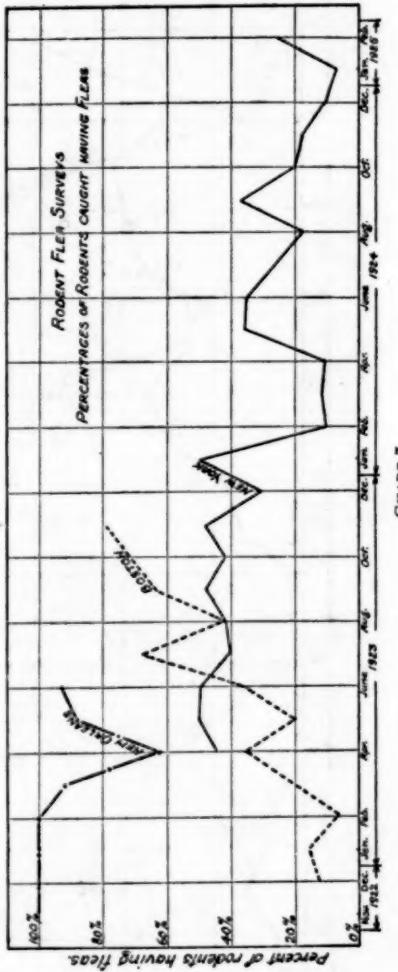
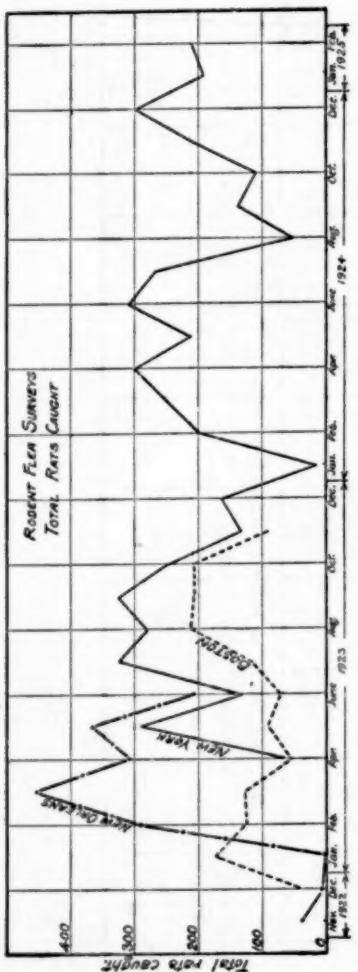
1927

September 11, 1925



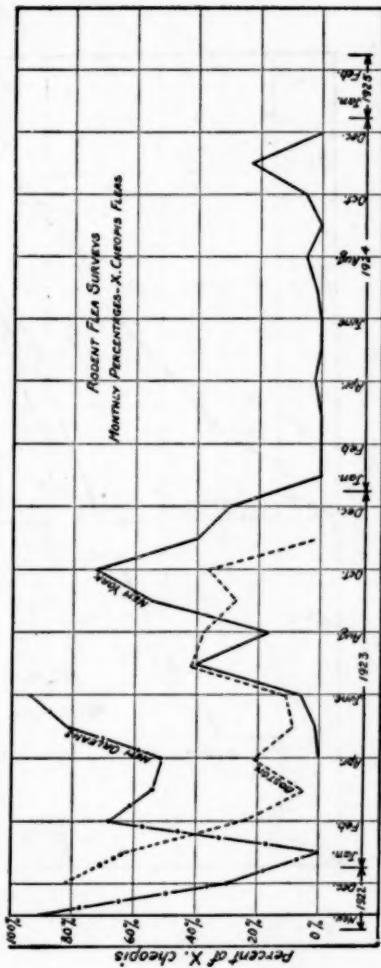
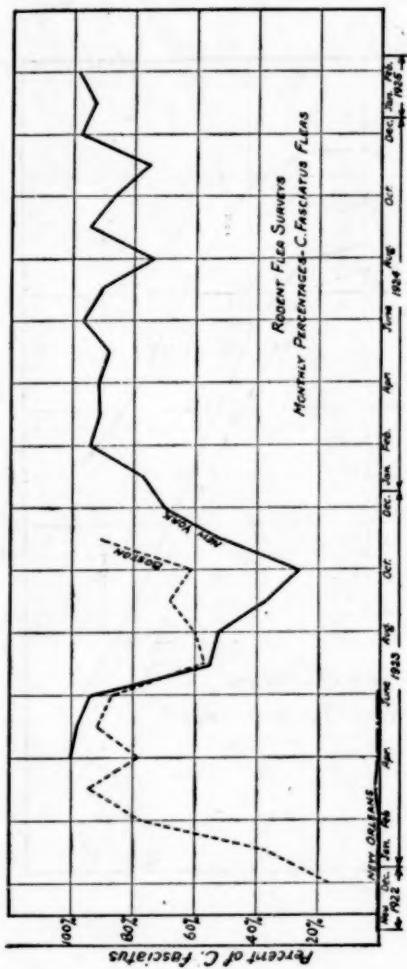
September 11, 1928

1928



1929

September 11, 1929



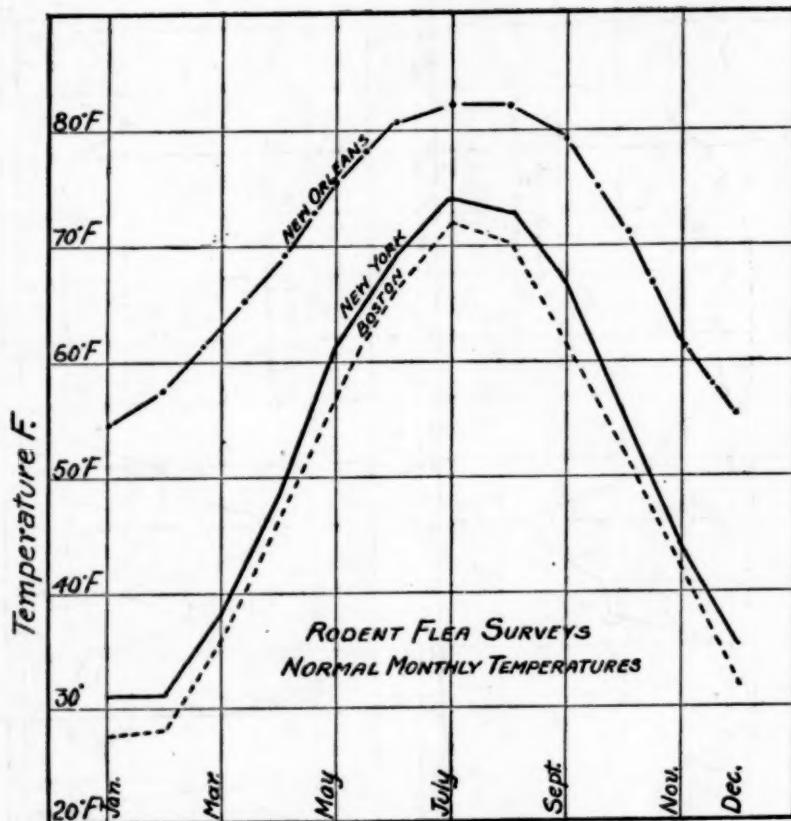
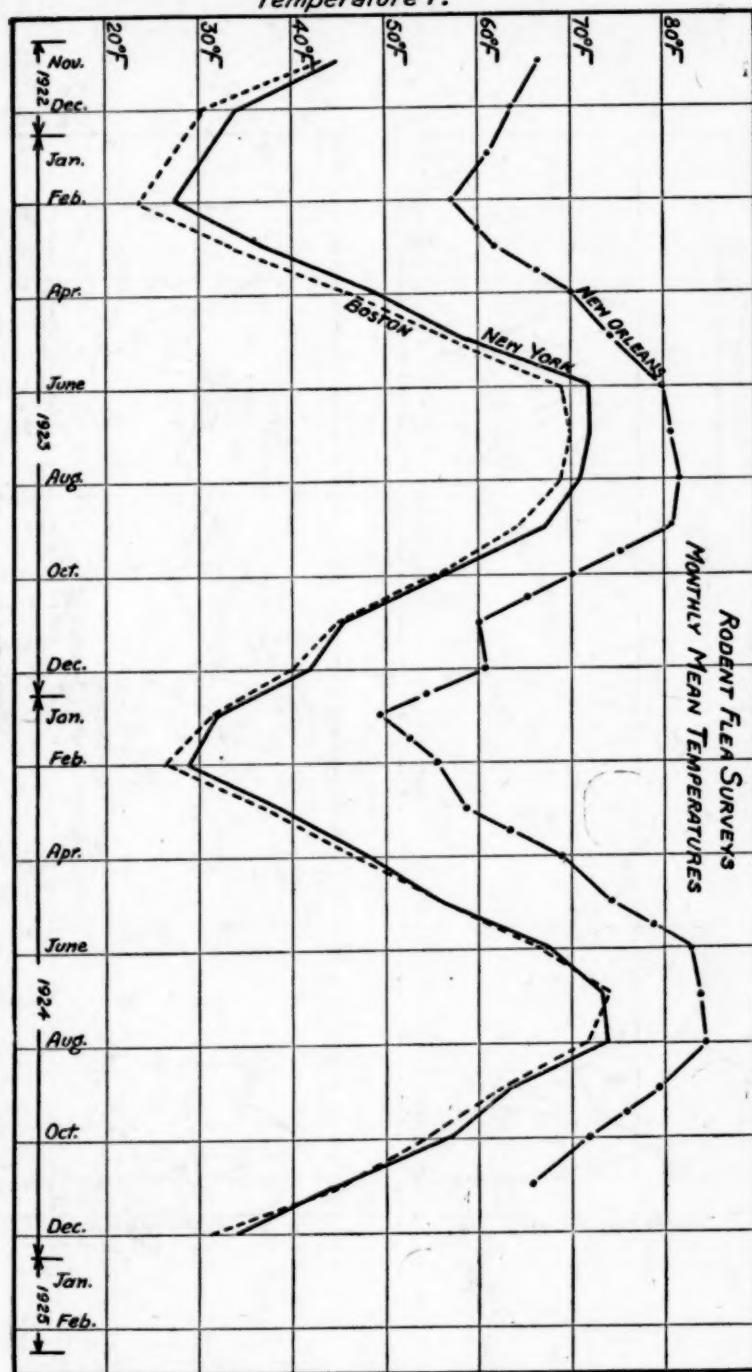


CHART 10

1931

September 11, 1925

## Temperature F.



September 11, 1925

1932

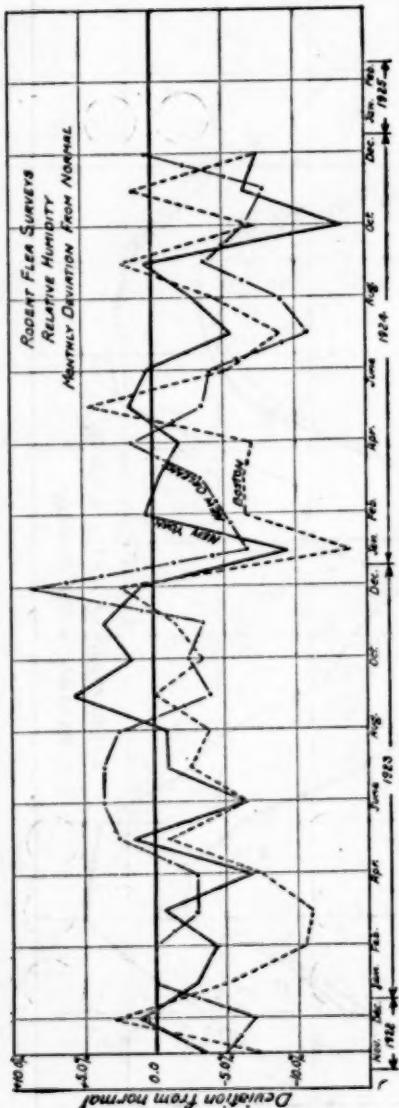


CHART 12

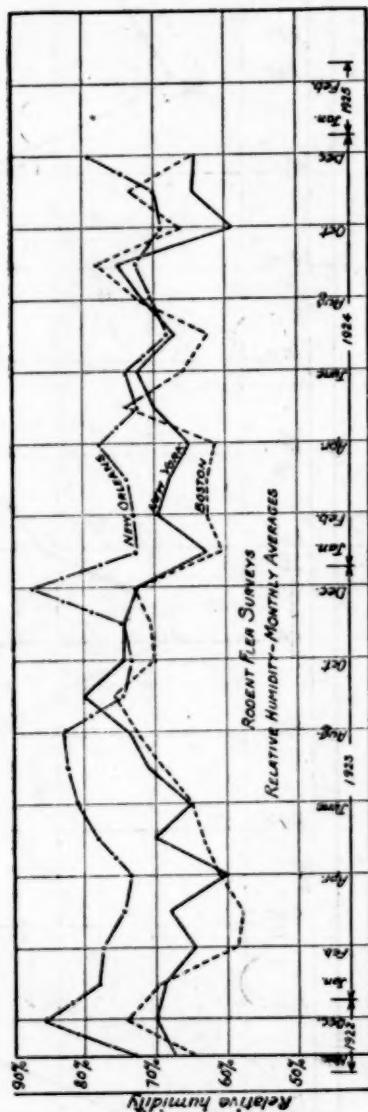


CHART 13

1933

September 11, 1925

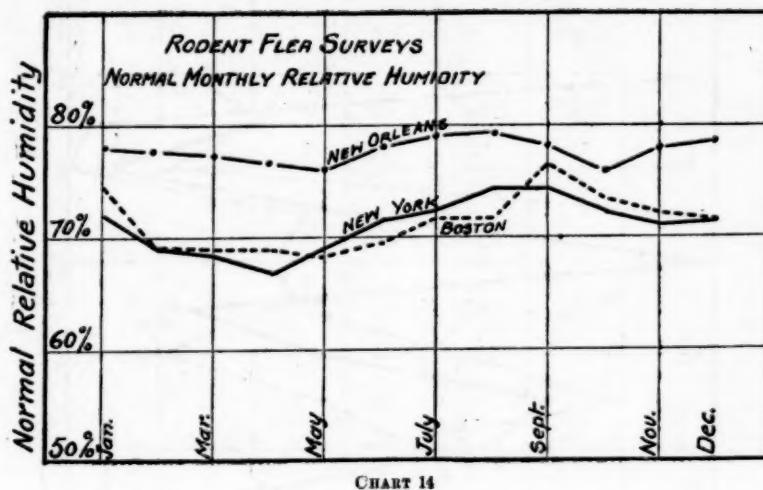


CHART 14

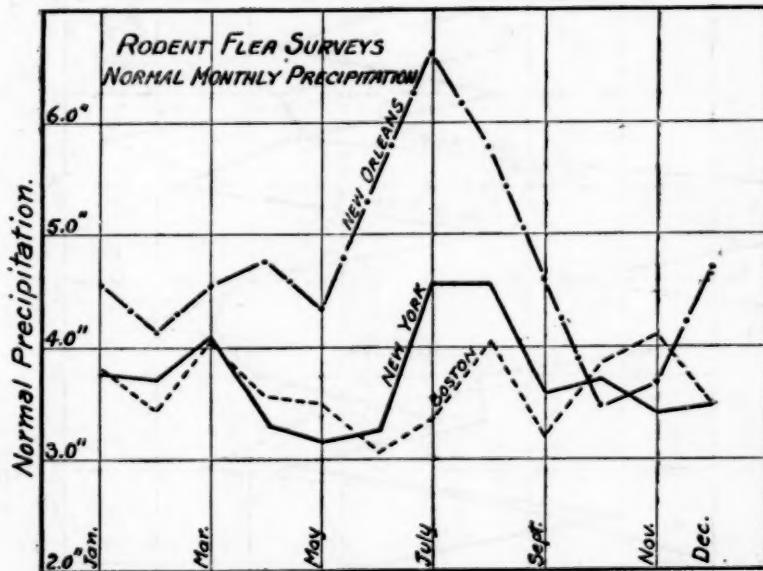
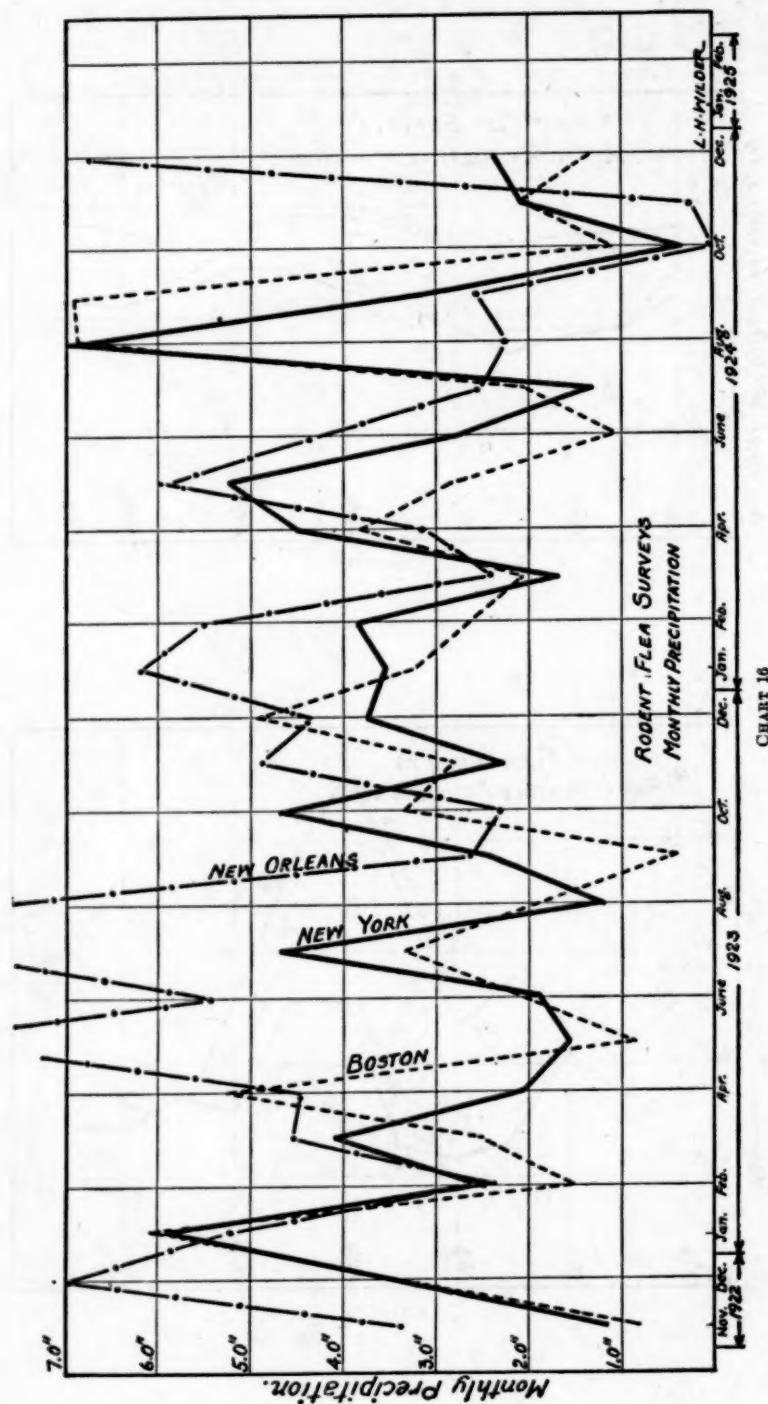


CHART 15



## CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT, ISSUED BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT, JULY 15, 1925<sup>1</sup>

Seasonal declines in the incidence of the more serious epidemic diseases, particularly plague, cholera, and smallpox, were reported in May and June by the countries where these diseases have been widespread. Similarly, the incidence of scarlet fever and diphtheria has shown the normal spring decline; and, as no increases in the occurrence of the warm-weather diseases were noted by the Epidemiological Report of July 15, the health situation in June, so far as epidemics are concerned, was decidedly favorable in most parts of the world.

*Plague.*—In India, where the minimum plague incidence usually occurs in July, a rapid decline was reported during May.

*Weekly plague incidence in British India during May*

Week ending—	Cases	Deaths	Week ending—	Cases	Deaths
May 2.....	3,858	3,359	May 16.....	1,162	1,012
9.....	1,952	1,672	23.....	840	667

In Java, although the plague incidence has been declining since February, the number of cases reported still exceeds the figures for previous years; 720 deaths were reported during the four weeks ended May 20, as against 947 during the previous four weeks and 382 in the corresponding period for 1924.

Plague incidence in Egypt has been lower than in previous years, and only a slight increase was reported in May and June. The total incidence in the first six months of 1925 was 78, compared with 320 in the corresponding period of 1924.

An increase in plague was reported in Kenya, where 100 cases were notified in May, compared with 56 in April and 32 in March. A decline in May and June in other infected areas of Africa, particularly in Madagascar, is noted by the Report.

*Cholera.*—The cholera incidence in India is much lower than at the corresponding season of 1924, due to "the relative quiescence of the important centers of the disease in Bengal and the Ganges Valley." The epidemic in Kashmir, referred to last month, seemed to reach its maximum in the week ending May 9, when 2,844 cases and 1,548 deaths were reported. A general decline in the cholera cases occurred in the second and third weeks of May.

<sup>1</sup> From the Statistical Office, United States Public Health Service.

*Cholera cases and deaths in India, April 19-May 25*

Week ending—	Cases	Deaths	Week ending—	Cases	Deaths
Apr. 25.....	5,187	3,197	May 16.....	4,698	3,104
May 2.....	5,521	3,163	23.....	3,815	2,411
9.....	6,079	3,585			

Other localities which reported cholera in June were Ceylon, Indo-China, Siam, and Manila.

*Yellow fever.*—Cases of yellow fever reported included 6 in Nigeria in May.

*Typhus and relapsing fever.*—The incidence of typhus fever in Eastern Europe was low during the past winter, and the recent reports show it to have diminished rapidly in the spring.

*Typhus cases and deaths reported in various countries since the beginning of 1925*

Country	Period	Cases	Deaths	Case mortality
Bulgaria.....	4 months.....	54	4	7.4
Czechoslovakia.....	5 months.....	55	2	3.6
Leningrad.....	do.....	91	2	2.2
Lithuania.....	do.....	185	9	4.9
Poland.....	15 weeks.....	2,411	173	7.2
Kingdom of the Serbs, Croats, and Slovenes.....	6 months.....	310	45	14.5
Algeria.....	5½ months.....	463	34	7.3
Union of South Africa.....	4 months.....	261	24	9.2

The following additional comment on the epidemic of relapsing fever in Central Africa, referred to last month, is given in the Report:

Reports from the Chad Colony and Nigeria indicate that the epidemic of relapsing fever (*Spirochete obermeiri*) which had raged throughout the grass-lands south of the Sahara, moving from west to east, diminished rapidly during May and June. By the end of June, only Borku and Innedi, which were not reached by the epidemic until April, remained infected. Doctor Gouzien<sup>1</sup> estimates that this epidemic had caused between 50,000 and 60,000 deaths in a region which is for the most part only sparsely inhabited.

*Smallpox.*—The smallpox incidence continued to diminish in June in England and in the United States. "No important outbreaks have occurred on the Continent of Europe."

"The smallpox epidemic in India reached its height during the first half of April," states the Report, "and lower figures were reported from all provinces by the end of May. The highest number of cases during the week ending May 23 was reported from Bihar and Orissa (1,173)."

<sup>1</sup> Dr. P. Gouzien: Faits épidémiologiques, en Afrique Occidentale Française. *Annales de Médecine et Pharmacie Coloniales*, 1925, No. 1, pp. 66-81.

*Enteric fever and dysentery.*—The following comment with regard to enteric fever and dysentery is given in the Report:

Reports so far received show no increase in the incidence of these two diseases, with the exception of an outbreak in Sweden, where 405 cases of enteric fever occurred during the second half of June as against 46 during the preceding fortnight; 289 of these occurred in Gothenburg. Only half as many cases of this disease were reported in England in May and June as during the corresponding months of 1924. The incidence of both diseases in Central Europe was lower than during the same period of the three preceding years. A marked improvement over previous years is seen in Japan, where 1,873 cases of enteric fever and 371 of dysentery were reported for the four weeks ending May 30, as against 3,622 and 577, respectively, during May, 1924.

Reference has been made in the Public Health Reports to an increase since June in typhoid fever in the United States, particularly in the South Atlantic Division and the North and South Central Divisions. (See Public Health Reports, July 17, p. 1524, and August 14, p. 1701.)

*Epidemic diseases of the central nervous system.*—No fresh outbreaks of epidemic encephalitis, acute poliomyelitis, or cerebrospinal meningitis were noted in the reports received by the Health Section in the month prior to the publication of the July Report. A decrease was noted in the number of cases of encephalitis reported in England in June.

*Scarlet fever and diphtheria.*—A comparison of the case fatality of scarlet fever and diphtheria in a number of countries is given by the Report. Attention is called to the fact that the completeness of reporting varies considerably in different countries and that the case fatality given in the table below can not be taken as an accurate indication of the virulence of the two diseases in the countries concerned. In the same country the completeness of the reports is likely to be equal for the two diseases and, therefore, a comparison of the two will give a fairly accurate indication of the relative severity of the two diseases.

The following comparison of the relative severity of the two diseases is given by the Report:

It is significant that the case mortality of scarlet fever is higher than that of diphtheria in eastern Europe; expressed in units of the case mortality of diphtheria, it is 2.90 in Poland, 1.37 in Bulgaria, 1.36 in the Kingdom of the Serbs, Croats, and Slovenes, 1.34 in Turkey, and 1.03 in the city of Leningrad. An intermediate group is formed by Greece (0.75), Lithuania (0.67), Hungary (0.51), Rumania (0.47), and Czechoslovakia (0.43). The reported case mortality of diphtheria is from three to six times higher than that of scarlet fever in Scotland (0.33), London (0.24), Austria (0.19), the Netherlands (0.16), Canada (0.18), and New Zealand (0.22).

## Case mortality rates of diphtheria and scarlet fever in various countries since the beginning of 1925

Country or town	Period	Diphtheria			Scarlet fever			$\frac{b^1}{a}$
		Cases	Deaths	(a) Per cent	Cases	Deaths	(b) Per cent	
England (London)	27 weeks	6,189	257	4.2	5,603	57	1.0	0.24
Austria	24 weeks	1,923	60	3.1	3,141	19	.6	.78
Bulgaria	4 months	446	62	13.9	945	180	19.0	.19
Canada	5 months	3,122	461	14.8	7,889	210	2.7	1.31
Scotland (16 cities)	27 weeks	2,488	199	8.0	5,171	136	2.6	.33
France (Paris)	6 months	1,378	112	8.1	1,454	62	4.3	.53
Greece	5½ months	80	14	16.3	152	19	12.3	.75
Netherlands	4 months	1,850	119	6.4	3,057	32	1.0	.16
Hungary	5½ months	1,572	150	9.5	3,617	174	4.8	.51
Lithuania	5 months	69	4	5.8	584	23	3.9	.67
New Zealand	22 months	610	14	2.3	433	2	.5	.22
Norway (cities)	5 months	199	7	3.5	259	0	-----	-----
Poland	16 weeks	1,878	200	10.6	7,596	2,335	30.7	2.90
Rumania	4 months	490	94	19.2	3,969	362	9.1	.47
Kingdom of the Serbs, Croats, and Slovenes.	6 months	737	116	15.7	4,163	891	21.4	1.36
Russia (Leningrad)	17 weeks	278	28	10.1	2,511	262	10.4	1.03
Czechoslovakia	5 months	1,680	127	7.6	4,148	138	3.3	.43
Saar Territory	25 weeks	141	12	8.5	87	1	1.1	.13
Turkey	4 months	133	23	17.3	280	65	23.2	1.34
Uruguay	3 months	64	5	7.8	81	0	0	-----

<sup>1</sup> Case mortality of scarlet fever expressed in unit of the case mortality of diphtheria.

**Measles.**—The incidence of measles continued high in May in France, Italy, Belgium, and Hungary. A sharp increase in the disease occurred in Egypt in May and June, and more deaths occurred than at the same season of 1924, but fewer than in the epidemic of 1923. A large number of deaths from measles was reported by Mexico—956 deaths in April.

**Tuberculosis.**—An improvement in the tuberculosis mortality during the first half of 1925 as compared with last year is noted in many cities. The decline is most marked in Germany, where there were 10,181 deaths from tuberculosis (all forms) in 46 cities during the first 24 weeks of 1925, compared with 12,063 and 15,527, respectively, during the corresponding period of 1924 and 1923, and in Budapest, where the number of deaths fell from 2,043 in the first five months of 1924 to 1,383 in the corresponding period of the present year.

**Leprosy.**—The following data on leprosy are given in the Report:

## New cases of leprosy reported in various countries, by quarters, during 1924 and 1925

Country	1924					1925
	I	II	III	IV	Total	I
Algeria	1	0	1	0	2	1
Western Australia	0	0	1	0	1	0
Dominican Republic						1
Estonia	8	3	3	6	20	0
United States	6	4	17	9	36	8
France	2	2	0	2	6	0
Greece	0	0	2	0	2	0
Latvia	3	1	4	8	16	0
Iraq	0	0	1	0	1	10
Mexico (deaths)	7	17	18	36	78	23
Panama Canal Zone	6	8	0	7	21	2
Philippine Islands—Manila	8	9	6	0	23	0
Serb, Croat, Slovene Kingdom						4
Switzerland	9	0	0	0	11	1
Uruguay	3	1	2	1	7	2
Zanzibar						1

<sup>1</sup> Imported from Bolivia.

## DIPHTHERIA IMMUNIZATION OF SCHOOL CHILDREN IN WINDSOR, ONTARIO

The board of education and the board of health of Windsor, Ontario, are cooperating in waging a campaign against diphtheria and plan to begin toxin-antitoxin inoculations of all susceptible school children as soon as the schools open in September. There are about 15,000 school children in Windsor and vicinity.

In order to secure the full cooperation of the school boards and the consent of the parents, the board of health addressed a letter to all school boards of the border cities reviewing the history of diphtheria in the locality from 1895 down to the present time, showing the reduction in the case fatality rate by the use of diphtheria antitoxin from between 30 and 60 to less than 6 per cent, but pointing out that while the case fatality rate had been reduced there were still a large number of cases—1,185 cases, with 54 deaths in the border cities from 1920 to 1924, inclusive. The letter also gives a brief summary of the results achieved by the use of the toxin-antitoxin mixture.

In case of inability to pay for the inoculations, they will be administered free of charge. They are to be entirely voluntary, and no child will be inoculated without the consent of the parents or guardian.

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### ANTIVACCINATIONIST DIES OF SMALLPOX

Health Briefs for July, issued monthly by the Tennessee Department of Public Health, takes the following item from a recent issue of the Health News, of the New York State Department of Health:

Health News of February 2 carried an item mentioning a fatal case of smallpox in a school-teacher. An interesting feature of this case has just been brought to our attention by the health officer of the municipality in which the teacher lived.

Following the teacher's death, mothers of two pupils in her class independently reported to the health officer that just before Christmas they had told the teacher that their children were to be vaccinated during the holidays. The teacher strongly advised against it on the ground that it "was a medieval custom, was harmful to the welfare of the child, and that deaths were occasionally caused by such vaccinations."

On January 12 this teacher died of smallpox.

Although she took her own advice, fortunately the mothers of her pupils did not do so.

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### HEALTH OFFICER TRACES TYPHOID CARRIER

The following articles are taken from the Health News (N. Y.) of August 31, 1925:

During the period July 5 to July 10, five cases of typhoid fever developed in the towns of Greenwich and Fort Edward, Washington County. Dr. Leonard

A. Hulsebosch, the local health officer, who made a very commendable epidemiological investigation of this outbreak, found that a laborer on the dairy farm from which all the patients had obtained milk, had had a fever lasting for six weeks 16 years previously. He also found that this man was employed on another farm last year and that his employer developed typhoid fever a few weeks afterwards. A specimen of feces was obtained from this employee and forwarded to the department laboratory. Typhoid bacilli were isolated from the specimen, thus definitely showing him to be a carrier.

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### DIPHTHERIA IMMUNIZATION IN A SMALL COMMUNITY

Twenty-five children in the town of Conesville, Schoharie County, have been immunized against diphtheria with toxin-antitoxin by Dr. Charles A. Shultes, health officer. The parents of preschool children were urged to secure from their family doctors this protective treatment for their children at a recent "Children's Health Consultation," held in the town under the auspices of the division of maternity, infancy, and child hygiene. This information is of special interest in view of the fact that the town has a population of less than 1,000 persons, scattered over a considerable area.

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### ABSTRACTS OF CURRENT PUBLIC HEALTH COURT DECISIONS

*Evidence held not to warrant jury in finding that contamination of well was caused by defective sewer.*—(Iowa Supreme Court.) The plaintiff alleged that, due to negligent, defective construction of a sewer in front of his premises, a well on his premises became polluted with typhoid-fever germs contained in sewage which escaped through the joints of the sewer, and that members of his family were taken ill with typhoid fever caused by drinking the contaminated well water. A jury awarded damages to the plaintiff. The supreme court, however, reversed the judgment, holding that the evidence did not warrant a finding by the jury that plaintiff's well was contaminated by sewage which escaped from the alleged defective tile joints. There was evidence showing that in the operation of the sewer the tendency would be to infiltration rather than outfiltration. It was also shown that several outside toilets and a hogpen were in closer proximity to the well than was the sewer in question. In closing the opinion the court said:

Sufficient to state that the circumstantial evidence, upon which plaintiff relies, fails to carry the burden placed upon him. The jury was not justified in inferring from a mere possibility the existence of a cause upon which plaintiff predicates his action. (*Hemminger v. City of Des Moines*, 203 N. W. 822.)

*Action against city for damages defeated by failure to present claim within time specified by charter.*—(Washington Supreme Court.) Plaintiffs, husband and wife, brought an action based on negligence against the city of Everett for damages on account of the contraction

by the wife of typhoid fever alleged to have been caused by the use of polluted water furnished by the municipality. The disease was contracted on or about July 28, 1923, and claim for damages was presented to the city on October 16, 1923. Section 145 of the city charter provided as follows:

All persons having claims for damages for personal injuries or for injuries to personal property sustained by reason of alleged negligence or any act of the city or any officer, agent, servant, or employee of the city must present such claim to the council within 30 days after such injury or damage.

The court held that the charter provision was mandatory and, claim not having been presented within the specified time, affirmed a judgment dismissing the action. (Sheer et al. v. City of Everett, 235 Pac. 789.)

*Pneumonia resulting from accidental injury to leg held compensable under workmen's compensation law.*—(Oregon Supreme Court.) An employee while engaged in his work received an accidental injury to his leg. Following the injury, pneumonia developed, and in a proceeding to recover compensation under the workmen's compensation law the jury found that the pneumonia was the proximate result of the leg injury. The supreme court held that the finding of the jury was supported by some evidence and affirmed a judgment in favor of the claimant. (Robertson v. State Industrial Accident Commission, 235 Pac. 684.)

*Ordinance requiring sewer connections when deemed necessary by city board of health construed and upheld.*—(South Carolina Supreme Court.) A property owner was ordered by the board of health of the city of Columbia, acting under authority of a city ordinance, to connect certain premises owned by her with the city sewer. The property in question faced on an alley in which there was no sewer main, but was a part of property owned by the same person, which extended entirely through a square and which faced on four streets, in all of which streets there were sewer mains. Said owner failed to comply with the order and her conviction for such failure was affirmed by the supreme court. The following points were decided in the case:

(1) The ordinance, requiring the connection "of premises on the line of the city sanitary sewers," was not restricted in its application solely to houses which faced on or immediately abutted the street upon which the sewer main was.

(2) The ordinance was not unreasonable because it required property owners to connect with sewers located at some distance, thus entailing considerable expense.

(3) It was not an abuse of the exercise of the city's discretion to place its sewer mains in the streets surrounding the particular property involved in this case and to fail to put a sewer main in the alley on which the particular property faced.

(4) The contention that the ordinance violated the State constitution, because of there being no provision in the ordinance for a hearing, by the board of health, of the protest of a property owner who had been notified to connect with the sewer, was held to be without merit. (*City of Columbia v. Shaw*, 127 S. E. 722.)

### DEATHS DURING WEEK ENDED AUGUST 22, 1925

*Summary of information received by telegraph from industrial insurance companies for week ended August 22, 1925, and corresponding week of 1924. (From the Weekly Health Index, August 25, 1925, issued by the Bureau of the Census, Department of Commerce)*

	Week ended August 22, 1925	Corresponding week, 1924
Policies in force.....	60,810,078	56,783,309
Number of death claims.....	8,839	8,664
Death claims per 1,000 policies in force, annual rate.....	7.6	8.0

*Deaths from all causes in certain large cities of the United States during the week ended August 22, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, August 25, 1925, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Aug. 22, 1925		Annual death rate per 1,000 corre- sponding week, 1924	Deaths under 1 year		Infant mortality rate week ended Aug. 22, 1925 <sup>1</sup>
	Total deaths	Death rate <sup>2</sup>		Week ended Aug. 22, 1925	Corre- sponding week, 1924	
Total (66 cities).....	5,776	10.8	10.3	801	771	* 67
Akron.....	32			7	2	78
Albany <sup>3</sup> .....	34	14.8	15.0	4	2	87
Atlanta.....	67			13	6	
Baltimore <sup>4</sup> .....	192	12.6	12.4	28	36	84
Birmingham.....	56	14.2	12.7	6	8	
Boston.....	172	11.5	11.1	24	24	64
Bridgeport.....	25			2	4	32
Buffalo.....	120	11.3	10.5	18	20	73
Cambridge.....	23	10.7	11.2	2	4	34
Camden.....	35	14.2	11.6	12	4	191
Chicago <sup>5</sup> .....	565	9.8	8.8	60	74	61
Cincinnati.....	122	15.5	13.9	16	19	95
Cleveland.....	158	8.8	7.2	22	19	55
Columbus.....	73	13.6	9.5	14	6	128
Dallas.....	55	14.8	12.5	6	6	
Dayton.....	31	9.3	12.9	5	8	79
Denver.....	81	15.0	14.0	16	10	
Des Moines.....	17	5.9	11.9	0	1	0
Detroit.....	249			58	59	100
Duluth.....	18	8.5	5.3	0	2	0
El Paso.....	33	16.4	15.5	7	10	
Erie.....	31			3	3	88
Fall River <sup>6</sup> .....	19	8.2	12.1	4	3	58
Flint.....	20	8.0	7.1	5	2	79
Fort Worth.....	28	9.6	7.0	4	1	
Grand Rapids.....	31	10.6	7.4	7	0	110
Houston.....	64	20.2	10.4	6	5	
Indianapolis.....	73	10.6	12.3	6	12	43
Jersey City.....	47	7.8	10.7	4	6	28
Kansas City, Kans.....	25	10.5	11.1	1	7	21
Kansas City, Mo.....	86	12.2	13.3	8	17	

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 61 cities.

<sup>4</sup> Deaths for week ended Friday, Aug. 21, 1925.

*Deaths from all causes in certain large cities of the United States during the week ended August 22, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, August 25, 1925, issued by the Bureau of the Census, Department of Commerce)—Continued*

City	Week ended Aug. 22, 1925		Annual death rate per 1,000 corresponding week, 1924	Deaths under 1 year		Infant mortality rate week ended Aug. 22, 1925
	Total deaths	Death rate		Week ended Aug. 22, 1925	Corresponding week, 1924	
Los Angeles	200			30	18	83
Louisville	92	18.5	12.1	15	11	131
Lowell	21	9.4	11.3	5	6	87
Lynn	17	8.5	7.0	2	0	53
Memphis	69	20.6	23.6	12	10	
Milwaukee	63	6.5	8.2	3	13	14
Minneapolis	84	10.3	7.7	12	4	64
Nashville	41	15.7	20.7	7	11	
New Bedford	20	7.7	6.7	0	3	0
New Haven	23	6.7	11.3	3	7	39
New Orleans	163	20.5	15.9	24	17	
New York	1,071	9.1	9.3	141	151	57
Bronx Borough	123	7.1	7.4	13	7	45
Brooklyn Borough	367	8.6	8.2	49	64	50
Manhattan Borough	459	10.6	10.8	62	62	65
Queens Borough	90	8.2	8.8	10	12	46
Richmond Borough	32	12.5	17.6	7	6	125
Newark, N. J.	78	9.0	9.5	14	10	64
Norfolk	31			9	2	166
Oakland	48	9.9	10.8	3	4	35
Oklahoma City	17			4	3	
Omaha	45	11.1	9.8	7	7	72
Paterson	26	9.6	8.2	1	0	17
Philadelphia	417	11.0	9.1	63	51	80
Pittsburgh	162	13.4	10.8	30	16	100
Portland, Ore.	62	11.4	11.3	3	4	30
Providence	57	12.1	12.4	5	12	40
Richmond	39	10.9	10.8	6	6	72
Rochester	63	9.9	8.3	14	3	112
St. Louis	212	13.5	12.8	35	22	
St. Paul	44	9.3	12.2	3	7	25
Salt Lake City	29	11.5	12.2	1	6	16
San Antonio	59	15.5	16.3	16	15	
San Diego	32	15.7	15.7	3	0	70
San Francisco	119	11.1	12.0	9	6	52
Schenectady	20	10.2	8.3	1	2	28
Seattle	58			3	3	29
Somerville	15	7.7	3.6	2	2	54
Spokane	19	9.1	8.5	2	0	45
Springfield, Mass.	28	9.6	8.8	2	9	30
Syracuse	28	7.6	10.8	9	7	113
Tacoma	19	9.5	15.2	1	2	23
Toledo	68	12.3	8.7	12	4	108
Trenton	33	13.0	15.3	7	3	115
Washington, D. C.	106	11.1	9.4	17	13	96
Waterbury	12			1	2	22
Wilmington, Del.	22	9.4	8.7	2	4	45
Worcester	38	10.0	12.3	5	5	58
Yonkers	18	8.4	10.5	2	5	44
Youngstown	28	9.1	10.4	8	7	99

\* Deaths for week ended Friday, Aug. 21, 1925.

## DEATHS DURING WEEK ENDED AUGUST 29, 1925

*Summary of information received by telegraph from industrial insurance companies for week ended August 29, 1925, and corresponding week of 1924. (From the Weekly Health Index, September 1, 1925, issued by the Bureau of the Census, Department of Commerce)*

	Week ended August 29, 1925	Corresponding week, 1924
Policies in force.....	60,730,631	54,263,831
Number of death claims.....	10,570	8,439
Death claims per 1,000 policies in force, annual rate.....	9.1	8.1

*Deaths from all causes in certain large cities of the United States during the week ended August 29, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, September 1, 1925, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Aug. 29, 1925		Annual death rate per 1,000 corre- sponding week, 1924	Deaths under 1 year		Infant mortality rate week ended Aug. 29, 1925 <sup>1</sup>
	Total deaths	Death rate <sup>2</sup>		Week ended Aug. 29, 1925	Corre- sponding week, 1924	
Total (66 cities).....	5,661	10.5	10.8	847	843	8.73
Albany <sup>3</sup> .....	30	13.1	12.3	0	6	0
Atlanta.....	69	—	—	7	9	—
Baltimore <sup>4</sup> .....	163	10.7	11.6	22	26	66
Birmingham.....	58	14.7	12.7	6	4	—
Boston.....	172	11.5	13.4	23	40	61
Bridgeport.....	27	—	—	2	1	32
Buffalo.....	110	10.4	13.0	24	25	97
Cambridge.....	18	8.3	8.9	3	3	52
Camden.....	20	8.1	7.8	4	4	64
Chicago.....	534	9.3	9.4	81	73	72
Cincinnati.....	110	14.0	14.6	14	18	83
Cleveland.....	172	9.6	9.5	36	23	90
Columbus.....	64	11.9	15.2	12	7	110
Dallas.....	39	10.5	10.8	7	6	—
Dayton.....	32	9.6	13.6	2	7	31
Denver.....	86	16.0	15.1	16	12	—
Des Moines.....	23	8.0	10.8	3	3	51
Detroit.....	248	—	—	66	46	113
Duluth.....	19	9.0	12.0	3	3	65
El Paso.....	24	11.9	11.9	5	10	—
Erie.....	12	—	—	1	0	19
Fall River <sup>4</sup> .....	24	10.3	10.3	5	4	72
Flint.....	18	7.2	5.0	5	2	79
Fort Worth.....	18	6.2	8.4	1	6	—
Grand Rapids.....	33	11.3	7.4	10	1	157
Houston.....	52	16.4	16.0	4	7	—
Indianapolis.....	83	12.1	15.0	10	18	71
Jersey City.....	63	10.4	7.2	8	7	57
Kansas City, Kans.....	27	11.4	11.1	2	2	42
Kansas City, Mo.....	80	11.4	11.9	10	8	—
Los Angeles.....	189	—	—	22	18	61
Louisville.....	62	12.5	12.3	8	10	70
Lowell.....	22	9.9	11.7	6	10	102
Lynn.....	12	6.0	10.1	3	3	80
Memphis.....	56	16.7	19.4	9	10	—
Milwaukee.....	85	8.8	7.4	7	9	33
Minneapolis.....	79	9.7	8.7	9	5	48
Nashville <sup>4</sup> .....	39	14.9	20.3	3	9	—
New Bedford.....	24	9.3	8.7	5	7	83
New Haven.....	39	11.4	7.4	8	3	104
New Orleans.....	132	16.6	16.6	21	19	—

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 60 cities.

<sup>4</sup> Deaths for week ended Friday, Aug. 28, 1925.

*Deaths from all causes in certain large cities of the United States during the week ended August 29, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, September 1, 1925, issued by the Bureau of the Census, Department of Commerce)—Continued*

City	Week ended Aug. 29, 1925		Annual death rate per 1,000 corresponding week, 1924	Deaths under 1 year		Infant mortality rate week ended Aug. 29, 1925
	Total deaths	Death rate		Week ended Aug. 29, 1925	Corresponding week, 1924	
New York	1,088	9.3	9.6	154	171	62
Bronx Borough	115	6.6	6.8	8	13	28
Brooklyn Borough	364	8.5	9.1	57	68	59
Manhattan Borough	481	11.1	11.0	73	70	76
Queens Borough	99	9.0	7.9	15	12	70
Richmond Borough	29	11.3	18.8	1	8	18
Newark, N. J.	93	10.7	8.1	15	11	68
Norfolk	26			3	4	55
Oakland	44	9.0	11.0	6	6	69
Oklahoma City	24			0	3	
Omaha	53	13.1	13.3	5	5	51
Paterson	33	12.1	14.8	2	6	34
Philadelphia	404	10.6	10.9	77	60	97
Pittsburgh	161	13.3	12.2	33	29	110
Portland, Oreg.	43	7.9	7.9	3	3	30
Providence	45	9.6	10.3	8	5	64
Richmond	41	11.5	9.1	7	0	84
Rochester	72	11.3	10.6	12	14	96
St. Louis	168	10.7	12.1	27	30	
St. Paul	58	12.3	12.2	3	5	25
Salt Lake City <sup>4</sup>	22	8.8	13.4	0	4	0
San Antonio	47	12.4	15.0	7	2	
San Diego	21	10.3	15.1	1	1	23
San Francisco	118	11.0	11.7	11	16	64
Schenectady	22	11.2	10.9	8	4	225
Seattle	86			5	1	48
Somerville	16	8.2	6.7	2	2	54
Spokane	22	10.5	14.5	1	2	22
Springfield, Mass.	25	8.5	9.8	2	4	30
Syracuse	36	9.8	10.5	7	2	88
Tacoma	19	9.5	8.6	1	0	23
Toledo	58	10.5	7.6	8	8	72
Trenton	38	15.0	16.1	8	8	131
Washington, D. C.	117	12.3	11.5	22	16	124
Waterbury	15			4	4	86
Wilmington, Del.	20	8.5	8.7	5	2	113
Worcester	46	12.1	13.9	7	7	81
Yonkers	25	11.7	10.0	5	4	109
Youngstown	24	7.8	9.4	5	5	62

<sup>4</sup> Deaths for the week ended Friday, Aug. 28, 1925.

## PREVALENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

### UNITED STATES

#### CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

#### Reports for Week Ended September 5, 1925

ALABAMA	Cases	ARKANSAS—continued	Cases
Cerebrospinal meningitis	1	Typhoid fever	59
Diphtheria	33	Whooping cough	15
Dengue	4		
Influenza	3		
Malaria	104		
Measles	1		
Mumps	9		
Pellagra	6		
Pneumonia	14		
Poliomyelitis	3		
Scarlet fever	21		
Smallpox	2		
Tetanus	4		
Trachoma	1		
Tuberculosis	53		
Typhoid fever	73		
Whooping cough	25		
ARIZONA		CALIFORNIA	
Scarlet fever	1	Cerebrospinal meningitis:	
Tuberculosis	4	Dinuba	1
Typhoid fever	3	Los Angeles	1
ARKANSAS		Diphtheria	51
Chicken pox	11	Influenza	2
Diphtheria	2	Lethargic encephalitis—San Francisco	1
Hookworm disease	2	Measles	10
Influenza	11	Poliomyelitis:	
Malaria	219	Bakersfield	1
Measles	1	Exeter	1
Mumps	8	Fresno County	1
Ophthalmia neonatorum	2	Gridley	1
Paratyphoid fever	1	Los Angeles	8
Pellagra	15	Oakland	1
Scarlet fever	4	Palo Alto	2
Smallpox	2	Pasadena	1
Trachoma	1	Redondo Beach	1
Tuberculosis	7	San Diego	1
		San Francisco	3
		Santa Ana	1
		Stockton	2
		Scarlet fever	27
		Smallpox:	
		Los Angeles	7
		Scattering	10
		Typhoid fever:	
		Los Angeles	5
		Scattering	17
		COLORADO	
		(Exclusive of Denver)	
		Chicken pox	1
		Diphtheria	22
		Influenza	2

## COLORADO—continued

	Cases
Measles	1
Mumps	4
Pneumonia	2
Poliomyelitis	1
Scarlet fever	14
Tuberculosis	67
Typhoid fever	34
Whooping cough	29

## CONNECTICUT

Chicken pox	3
Diphtheria	20
Dysentery	1
German measles	1
Measles	4
Mumps	2
Pneumonia (broncho)	9
Pneumonia (lobar)	9
Poliomyelitis	2
Scarlet fever	7
Tetanus	1
Tuberculosis	31
Typhoid fever	5
Whooping cough	43

## DELAWARE

Tuberculosis	1
Typhoid fever	9
Whooping cough	3

## GEORGIA

Actinomycosis	1
Chicken pox	2
Conjunctivitis	5
Diphtheria	31
Dysentery	8
Hookworm disease	2
Influenza	11
Malaria	63
Measles	2
Mumps	6
Pellagra	4
Pneumonia	10
Poliomyelitis	1
Scarlet fever	6
Septic sore throat	2
Smallpox	2
Trachoma	1
Tuberculosis	17
Typhoid fever	50
Typhus fever	5
Whooping cough	2

## ILLINOIS

Diphtheria:	
Cook County	31
Scattering	16
Influenza	4
Lethargic encephalitis:	
Cook County	1
McLean County	1
Measles	32
Pneumonia	84
Poliomyelitis:	
Cook County	6
Fulton County	4
Henry County	3

## ILLINOIS—continued

	Cases
Poliomyelitis—Continued.	
Jefferson County	1
Kankakee County	1
Knox County	2
Livingston County	1
Macoupin County	1
Peoria County	2
Rock Island County	2
Schuyler County	1
Stark County	2
Williamson County	1
Scarlet fever:	
Cook County	28
Lawrence County	6
St. Clair County	8
Scattering	43
Smallpox:	
Cook County	3
Tazewell County	3
Scattering	2
Tuberculosis	219
Typhoid fever:	
Cook County	10
Jackson County	5
Montgomery County	6
Saline County	6
Union County	5
Scattering	41
Whooping cough	136

## INDIANA

Cerebrospinal meningitis	1
Chicken pox	4
Diphtheria	19
Influenza	43
Measles	2
Pneumonia	4
Poliomyelitis	2
Scarlet fever	17
Smallpox	2
Tuberculosis	46
Typhoid fever	46
Whooping cough	25

## IOWA

Cerebrospinal meningitis—Linden	1
Chicken pox	1
Diphtheria	14
Measles	1
Mumps	10
Poliomyelitis:	
Adel	1
Alden	1
Cedar Rapids	1
Corwith	2
Fairfield	1
Gladbrook	1
Oskaloosa	1
Scarlet fever	7
Smallpox	9
Typhoid fever	14
Whooping cough	1

## KANSAS

Cerebrospinal meningitis—Atchison	1
Chicken pox	3

KANSAS—continued.		Cases	MASSACHUSETTS		Cases
Diphtheria	8		Cerebrospinal meningitis	2	
Dysentery	3		Chicken pox	5	
Influenza	3		Conjunctivitis (suppurative)	13	
Measles	3		Diphtheria	39	
Mumps	7		German measles	6	
Ophthalmia neonatorum	1		Influenza	2	
Pneumonia	8		Lethargic encephalitis	4	
Poliomyelitis:			Measles	36	
Bendena	1		Mumps	4	
Council Grove	1		Ophthalmia neonatorum	24	
Kensington	1		Pneumonia (lobar)	27	
Mildred	1		Poliomyelitis	10	
Minneapolis	1		Scarlet fever	39	
Newton	1		Septic sore throat	2	
Ottawa	2		Tetanus	2	
Valley Falls	1		Tuberculosis (all forms)	119	
Wichita	2		Typhoid fever	19	
Scarlet fever	21		Whooping cough	131	
Tuberculosis	62				
Typhoid fever	42				
Whooping cough	66				
LOUISIANA			MICHIGAN		
Diphtheria	15		Diphtheria	35	
Influenza	6		Measles	13	
Malaria	23		Pneumonia	45	
Pneumonia	27		Scarlet fever	55	
Poliomyelitis	1		Smallpox	2	
Scarlet fever	5		Tuberculosis	260	
Smallpox	2		Typhoid fever	36	
Tuberculosis	33		Whooping cough	112	
Typhoid fever	54				
Whooping cough	14				
MAINE			MINNESOTA		
Chicken pox	1		Cerebrospinal meningitis	1	
Diphtheria	1		Chicken pox	6	
Measles	1		Diphtheria	39	
Mumps	7		Influenza	3	
Pneumonia	1		Measles	1	
Poliomyelitis	1		Poliomyelitis	87	
Scarlet fever	4		Scarlet fever	56	
Tuberculosis	6		Tuberculosis	49	
Typhoid fever	3		Typhoid fever	6	
Whooping cough	5		Whooping cough	16	
MARYLAND <sup>1</sup>			MISSISSIPPI		
Cerebrospinal meningitis	1		Diphtheria	21	
Diphtheria	27		Scarlet fever	12	
Dysentery	11		Smallpox	5	
German measles	1		Typhoid fever	74	
Influenza	13				
Lethargic encephalitis	1				
Malaria	10				
Measles	13				
Mumps	4				
Ophthalmia neonatorum	1				
Paratyphoid fever	8				
Pneumonia (broncho)	11				
Pneumonia (lobar)	5				
Poliomyelitis	3				
Scarlet fever	12				
Tetanus	1				
Tuberculosis	42				
Typhoid fever	60				
Vincent's angina	1				
Whooping cough	66				
MISSOURI (Exclusive of Kansas City)			MISSOURI		
Chicken pox	4		Chicken pox	4	
Diphtheria	27		Diphtheria	27	
Malaria	1		Malaria	1	
Measles	1		Measles	1	
Mumps	9		Mumps	9	
Ophthalmia neonatorum	1		Ophthalmia neonatorum	1	
Pneumonia	3		Pneumonia	3	
Poliomyelitis	3		Poliomyelitis	3	
Scarlet fever	47		Scarlet fever	47	
Smallpox	4		Smallpox	4	
Tetanus	1		Tetanus	1	
Trachoma	16		Trachoma	16	
Tuberculosis	41		Tuberculosis	41	
Typhoid fever	62		Typhoid fever	62	
Whooping cough	46		Whooping cough	46	
MONTANA					
Chicken pox	1				
Diphtheria	6				

<sup>1</sup> Week ended Friday.

MONTANA—continued		NORTH CAROLINA—continued	
	Cases		Cases
Measles	1	Septic sore throat	1
Mumps	12	Smallpox	11
Poliomyelitis:		Typhoid fever	37
Dagmar	1	Whooping cough	49
Missoula	1		
Scarlet fever	11		
Smallpox	1		
Tuberculosis	3		
Typhoid fever	12		
Whooping cough	8		
NEBRASKA		OKLAHOMA	
Cerebrospinal meningitis	1	(Exclusive of Tulsa and Oklahoma City)	
Chicken pox	4	Diphtheria	1
Diphtheria	2	Influenza	5
Measles	2	Malaria	53
Mumps	2	Measles	1
Poliomyelitis	7	Pellagra	2
Scarlet fever	2	Pneumonia	3
Tuberculosis	1	Poliomyelitis:	
Typhoid fever	6	Cherokee	1
Whooping cough	10	Choctaw	1
NEW JERSEY		Scarlet fever	1
Cerebrospinal meningitis	3	Typhoid fever	26
Chicken pox	9	Whooping cough	4
Diphtheria	41		
Influenza	3		
Measles	21		
Pneumonia	22		
Poliomyelitis	9		
Scarlet fever	23		
Typhoid fever	31		
Whooping cough	64		
NEW MEXICO		OREGON	
Conjunctivitis	1	Cerebrospinal meningitis	1
Diphtheria <sup>1</sup>	3	Chicken pox	3
Dysentery	2	Diphtheria	11
Mumps	1	Measles	2
Paratyphoid fever	1	Mumps	2
Poliomyelitis	1	Pneumonia	4
Tuberculosis	9	Poliomyelitis	1
Typhoid fever	20	Scarlet fever	4
Whooping cough	15	Smallpox	2
NEW YORK		Tuberculosis	8
(Exclusive of New York City)		Typhoid fever	4
Diphtheria	42	Whooping cough	7
Influenza	3		
Lethargic encephalitis	1		
Measles	31		
Pneumonia	73		
Poliomyelitis	23		
Scarlet fever	47		
Typhoid fever	38		
Whooping cough	120		
NORTH CAROLINA		SOUTH CAROLINA	
Chicken pox	2	Dengue	1
Diphtheria	91	Diphtheria	50
Menses	3	Influenza	34
Poliomyelitis	3	Malaria	299
Scarlet fever	47	Poliomyelitis	2
Typhoid fever	38	Scarlet fever	5
Whooping cough		Smallpox	1
		Tuberculosis	36
		Typhoid fever	56
		Whooping cough	35
NORTH DAKOTA		SOUTH DAKOTA	
Chicken pox	4	Chicken pox	4
Diphtheria	2	Diphtheria	2
Influenza	4	Influenza	4
Poliomyelitis	1	Scarlet fever	18
Scarlet fever	18	Trachoma	1
Tuberculosis	4	Tuberculosis	4
Typhoid fever	0	Typhoid fever	0
Whooping cough	1	Whooping cough	1
TEXAS			
Chicken pox	1		
Diphtheria	8		
Dysentery	2		
Influenza	8		
Malaria	12		
Measles	2		

<sup>1</sup> The Public Health Service is advised that report of 13 cases of diphtheria in Bernalillo County, N. Mex. week ended Aug. 15, 1925, was incorrect and should have been report of 2 cases.

<sup>2</sup> Deaths.

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1950

TEXAS—continued		Cases	WEST VIRGINIA	Cases
Mumps	2	Diphtheria	4	
Paratyphoid fever	1	Scarlet fever	7	
Pellagra	6	Smallpox	2	
Pneumonia	2	Typhoid fever	21	
Poliomyelitis	3			
Scarlet fever	8			
Smallpox	4			
Trachoma	3			
Tuberculosis	13			
Typhoid fever	37			
Typhus fever	6			
Whooping cough	91			
VERMONT				
Diphtheria	2			
Measles	1			
Mumps	12			
Typhoid fever	1			
Whooping cough	11			
VIRGINIA				
Typhus fever—Henrico County	1			
WASHINGTON				
Cerebrospinal meningitis—Tacoma	1			
Chicken pox	7			
Diphtheria	8			
Measles	1			
Mumps	9			
Pneumonia	1			
Poliomyelitis:				
King County	1			
Kitsap County	1			
Pierce County	1			
Seattle	2			
Skagit County	4			
Snohomish County	1			
Tacoma	1			
Scarlet fever	8			
Smallpox	11			
Tuberculosis	42			
Typhoid fever	11			
Whooping cough	21			
WISCONSIN				
Milwaukee:				
Chicken pox			3	
Diphtheria			3	
Mumps			3	
Pneumonia			11	
Scarlet fever			4	
Tuberculosis			10	
Typhoid fever			1	
Whooping cough			54	
Scattering:				
Cerebrospinal meningitis			2	
Chicken pox			22	
Diphtheria			28	
German measles			33	
Influenza			4	
Lethargic encephalitis			2	
Measles			65	
Mumps			17	
Pneumonia			2	
Poliomyelitis			20	
Scarlet fever			27	
Smallpox			1	
Tuberculosis			28	
Typhoid fever			5	
Whooping cough			128	
WYOMING				
Chicken pox			1	
Diphtheria			5	
Influenza			5	
Poliomyelitis—Goshen			1	
Scarlet fever			7	
Tuberculosis			2	
Typhoid fever			2	

## Reports for Week Ended August 29, 1925

DISTRICT OF COLUMBIA	Cases	NEW YORK—continued	Cases
Measles	2	Poliomyelitis	30
Pneumonia	7	Scarlet fever	31
Poliomyelitis	2	Typhoid fever	35
Scarlet fever	7	Whooping cough	135
Tuberculosis	27		
Typhoid fever	3		
Whooping cough	16		
NEBRASKA			
Diphtheria	1		
Measles	1		
Mumps	3		
Poliomyelitis	6		
Scarlet fever	8		
Smallpox	2		
Typhoid fever	2		
Whooping cough	5		
NEW YORK (Exclusive of New York City)			
Cerebrospinal meningitis	1	Dengue	4
Diphtheria	37	Diphtheria	41
Influenza	1	Influenza	31
Measles	54	Malaria	365
Pneumonia	73	Poliomyelitis	7
		Scarlet fever	5
		Smallpox	1
		Tuberculosis	46
		Typhoid fever	73
		Whooping cough	24

## PLAQUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradicative measures from the cities named:

*Los Angeles, Calif.*

Week ended Aug. 22, 1925:

Number of rats trapped.....	2,305
Number of rats found to be plague infected.....	2
Number of squirrels examined.....	540
Number of squirrels found to be plague infected.....	0
Number of mice trapped.....	2,318
Number of mice found to be plague infected.....	0

Date of discovery of last plague-infected rodent, Aug. 22, 1925.

Date of last human case, Jan. 15, 1925.

*Oakland, Calif.*

(Including other East Bay communities)

Week ended Aug. 22, 1925:

Number of rats trapped.....	1,191
Number of rats found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1 to Aug. 22, 1925.....	65,444
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to Aug. 1, 1925.....	7,277
Number of squirrels found to be plague infected.....	0

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

*New Orleans, La.*

Week ended Aug. 22, 1925:

Number of vessels inspected.....	16
Number of inspections made.....	34
Number of vessels fumigated with cyanide gas.....	11
Number of rodents examined for plague.....	2,799
Number of rodents found to be plague infected.....	0

Totals, Dec. 5, 1924, to Aug. 22, 1925:

Number of rodents examined for plague.....	160,144
Number of rodents found to be plague infected.....	12

Date of discovery of last plague-infected rat, Jan. 17, 1925.

Date of last human case occurring in New Orleans, Aug. 20, 1920.

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1952

## POLIOMYELITIS IN THE UNITED STATES

Cases of poliomyelitis reported by State health officers for the six weeks ended August 29, 1925, compared with reports for the corresponding period of 1924

State	1924	1925	State	1924	1925
Alabama	3	23	Missouri	1	161
Arizona	1	14	Montana	137	18
Arkansas	1	0	Nebraska	0	21
California	10	270	New Jersey	14	67
Colorado	1	12	New York	403	274
Connecticut	45	21	North Carolina	6	33
Delaware	0	10	North Dakota	2	141
District of Columbia	1	6	Oregon	0	2
Florida	0	23	South Dakota	5	5
Georgia	0	5	Texas	3	5
Illinois	44	52	Vermont	1	9
Indiana	20	9	Washington	21	26
Kansas	4	38	West Virginia	1	2
Louisiana	1	7	Wisconsin	3	78
Maine	35	5	Wyoming	0	4
Maryland	61	8			
Massachusetts	45	33	Total	785	1,498
Minnesota	16	325			

<sup>1</sup> Incomplete.

Cases of poliomyelitis reported by the health officers of 32 States July 19 to August 29, 1925, and July 20 to August 30, 1924, by weeks

Week ended—	1924	Week ended—	1925
July 26	66	July 25	172
Aug. 2	75	Aug. 1	218
Aug. 9	99	Aug. 8	275
Aug. 16 <sup>1</sup>	149	Aug. 15	279
Aug. 23	166	Aug. 22	278
Aug. 30	230	Aug. 29 <sup>1</sup>	276
Total	785	Total	1,498

<sup>1</sup> Incomplete.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

*Diphtheria.*—For the week ended August 22, 1925, 34 States reported 837 cases of diphtheria. For the week ended August 23, 1924, the same States reported 961 cases of this disease. One hundred and two cities, situated in all parts of the country and having an aggregate population of more than 28,700,000, reported 382 cases of diphtheria for the week ended August 22, 1925. Last year for the corresponding week they reported 495 cases. The estimated expectancy for these cities was 564 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty-one States reported 395 cases of measles for the week ended August 22, 1925, and 430 cases of this disease for the week ended August 23, 1924. One hundred and two cities reported 172 cases of measles for the week this year, and 137 cases last year.

*Poliomyelitis.*—The health officers of 36 States reported 289 cases of poliomyelitis for the week ended August 22, 1925. The same States reported 168 cases for the week ended August 23, 1924.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-four States—this year, 672 cases; last year, 732 cases; 102 cities—this year, 291, last year, 291 cases; estimated expectancy, 223 cases.

*Smallpox.*—For the week ended August 22, 1925, 34 States reported 125 cases of smallpox. Last year for the corresponding week, they reported 191 cases. One hundred and two cities reported smallpox for the week as follows: 1925, 30 cases; 1924, 71 cases; estimated expectancy, 20 cases. One death from smallpox was reported by these cities for the week this year—at Los Angeles, Calif.

*Typhoid fever.*—One thousand and ninety cases of typhoid fever were reported for the week ended August 22, 1925, by 34 States. For the corresponding week of 1924 the same States reported 765 cases. One hundred and two cities reported 314 cases of typhoid fever for the week this year, and 246 cases for the corresponding week last year. The estimated expectancy for these cities was 236 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia (combined) were reported for the week by 102 cities as follows: 1925, 309 deaths; 1924, 258 deaths.

#### *City reports for week ended August 22, 1925*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1923, estimated	Chick-en pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
<b>NEW ENGLAND</b>									
Maine:									
Portland	73,129	0	1	0	0	0	2	0	1
New Hampshire:									
Concord	22,408	0	0	0	0	0	0	0	0
Manchester	81,383		1	1	0	0	0		
Nashua	29,234	0	1	0	0	0	0	0	0
Vermont:									
Baile	10,008	0	0	0	0	0	0	0	0
Burlington	23,613	0	1	0	0	0	1	0	0
Massachusetts:									
Boston	770,400	4	33	10	0	0	11	1	7
Fall River	120,912	1	2	1	0	0	8	0	0
Springfield	144,227	0	2	1	0	0	0	0	0
Worcester	191,927	0	2	2	0	0	7	1	2
Rhode Island:									
Pawtucket	68,799	0	0	1	0	0	0	0	0
Providence	242,378	0	6	2	0	0	9	0	1

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1954

## City reports for week ended August 22, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick-en pox, cases reported	Diphtheria		Influenza		Meas-les, cases reported	Mumps, cases reported	Pneu-monia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
<b>NEW ENGLAND—CON.</b>									
Connecticut:									
Bridgeport	1 143,555	0	3	3	0	0	1	0	0
Hartford	1 138,036	0	3	1	0	0	1	0	2
New Haven	172,967	1	2	0	0	0	0	0	
<b>MIDDLE ATLANTIC</b>									
New York:									
Buffalo	536,718	0	11	1	0	0	0	0	4
New York	5,927,625	22	103	95	1	1	28	6	76
Rochester	317,867	2	4	2	0	0	6	0	1
Syracuse	184,511	0	4	0	0	0	0	0	2
New Jersey:									
Camden	124,157	0	1	1	1	1	2	0	0
Newark	438,690	2	7	3	1	0	8	1	3
Trenton	127,390	0	3	0	0	0	1	0	1
Pennsylvania:									
Philadelphia	1,922,788	9	31	39	0	1	12	1	23
Pittsburgh	613,442	3	16	3	0	0	11	1	17
Reading	110,917	0	2	0	0	0	7	1	
<b>EAST NORTH CENTRAL</b>									
Ohio:									
Cincinnati	406,312	2	5	1	0	1	0	0	3
Cleveland	888,519	9	20	11	1	0	5	1	8
Columbus	261,082	0	2	0	0	1	0	0	2
Toledo	208,338	2	5	8	0	0	2	0	3
Indiana:									
Fort Wayne	93,573	1	1	2	0	0	0	0	2
Indianapolis	342,718	3	6	0	0	0	1	4	3
South Bend	76,709	0	1	0	0	0	0	0	2
Terre Haute	68,939	0	1	1	0	0	0	0	0
Illinois:									
Chicago	2,886,121	15	68	41	4	0	14	3	25
Cicero	55,968	1	0	0	0	0	1	0	2
Springfield	61,833	0	1	0	0	0	0	0	
Michigan:									
Detroit	905,668	7	32	12	0	0	2	0	4
Flint	117,968	2	4	0	0	0	0	0	2
Grand Rapids	145,947	0	2	0	0	0	1	0	
Wisconsin:									
Madison	42,519	0	1	0	0	0	4	0	0
Milwaukee	484,595	3	10	3	0	0	2	2	3
Racine	64,393	2	0	2	0	0	0	0	0
Superior	1 39,671	0	1	0	0	0	0	0	2
<b>WEST NORTH CENTRAL</b>									
Minnesota:									
Duluth	106,289	0	2	0	0	0	1	0	1
Minneapolis	409,125	14	11	19	0	0	0	0	4
St. Paul	241,891	3	11	3	0	0	1	0	
Iowa:									
Davenport	61,262	0	0	0	0	0	0	0	
Sioux City	79,662	0	0	0	0	0	0	1	
Waterloo	39,667	2	0	1	0	0	0	0	
Missouri:									
Kansas City	351,819	1	3	3	0	0	0	1	4
St. Joseph	78,232	0	1	0	0	0	0	1	0
St. Louis	803,833	0	19	18	0	0	9	0	
North Dakota:									
Fargo	24,841	0	1	0	0	0	0	2	1
Grand Forks	14,547	0	0	0	0	0	0	0	
South Dakota:									
Aberdeen	15,829	0	0	0	0	0	0	0	
Sioux Falls	29,206	1	0	2	0	0	0	0	0
Nebraska:									
Lincoln	58,761	0	1	3	0	0	0	4	0
Omaha	204,382	2	5	2	0	0	1	0	2
Kansas:									
Topeka	52,555	0	1	1	0	0	0	0	0
Wichita	79,261	1	1	0	0	0	0	0	1

<sup>1</sup> Population Jan. 1, 1920.

## City reports for week ended August 22, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick-en pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported			
			Cases, es-ti-mated ex-pectancy	Cases re-ported	Cases re-ported	Deaths re-ported						
					Cases, es-ti-mated ex-pectancy	Cases re-ported						
<b>SOUTH ATLANTIC</b>												
Delaware:												
Wilmington	117,728	0	1	3	0	0	1	0	3			
Maryland:												
Baltimore	773,580	6	11	8	0	0	11	4	9			
Cumberland	32,361	0	0	3	0	0	0	0	0			
Frederick	11,301	0	1	0	0	0	0	0	0			
District of Columbia:												
Washington	1,437,571	2	3	5	0	0	4	0	2			
Virginia:												
Lynchburg	30,277	0	1	1	0	0	0	0	1			
Norfolk	159,089	0	1	0	0	0	0	0	0			
Richmond	181,044	0	4	6	0	0	0	6	1			
Roanoke	55,502	0	2	0	0	0	0	0	0			
West Virginia:												
Charleston	45,597	0	1	1	0	0	0	0	1			
Huntington	57,918	0	0	0	0	0	2	0				
Wheeling	1,56,208	0	0	0	0	0	0	0	1			
North Carolina:												
Raleigh	29,171	0	0	1	0	0	0	0	2			
Wilmington	35,719	1	0	0	0	0	0	0	0			
Winston-Salem	53,230	0	1	1	0	0	1	0	1			
South Carolina:												
Charleston	71,245	0	1	0	0	0	0	0	0			
Columbia	39,688	0	1	0	0	0	0	0				
Greenville	25,789	0	1	0	0	0	0	0	0			
Georgia:												
Atlanta	222,963	1	3	1	1	0	0	0	8			
Brunswick	15,937	0	0	1	0	0	0	1				
Savannah	89,448	0	1	0	0	0	0	0	2			
Florida:												
St. Petersburg	24,403	0										
Tampa	56,050	0	1	0	1	0	0	0	0			
<b>EAST SOUTH CENTRAL</b>												
Kentucky:												
Covington	57,877	0	1	0	0	0	0	0	2			
Louisville	257,671	0	3	0	1	0	0	1	1			
Tennessee:												
Memphis	170,067	0	3	1	0	1	0	0	7			
Nashville	121,128	0	1	1	0	0	1	0	0			
Alabama:												
Birmingham	195,901	0	3	4	0	1	0	0	3			
Mobile	63,558	0	0	3	0	0	0	0	1			
Montgomery	45,383	0	0	2	0	0	0	1				
<b>WEST SOUTH CENTRAL</b>												
Arkansas:												
Fort Smith	30,635	0	1	0	0	0	0	0				
Little Rock	70,916	—	1	0	0	0	0	—	0			
Louisiana:												
New Orleans	404,575	0	7	4	2	1	0	0	3			
Shreveport	54,590	0	1	0	0	0	0	0	4			
Oklahoma:												
Oklahoma	101,150	0	1	0	0	0	0	0	1			
Tulsa	102,018	0	1	3	0	0	1	0	0			
Texas:												
Dallas	177,274	—	3	4	0	1	2	—	2			
Galveston	46,877	0	1	1	0	0	0	0	1			
Houston	154,970	0	2	4	0	0	0	0	4			
San Antonio	184,727	0	0	0	0	0	0	1	2			
<b>MOUNTAIN</b>												
Montana:												
Billings	16,927	—	0	0	0	0	0	1	0			
Great Falls	27,787	1	1	0	0	0	0	7	0			
Helena	1,12,037	—	1	1	0	0	0	0	0			
Missoula	1,12,668	0	0	0	0	0	0	6	0			
Idaho:												
Boise	22,806	0	0	1	0	0	0	0	0			

<sup>1</sup> Population Jan. 1, 1920.

## City reports for week ended August 22, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick-en pox, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mump-s, cases re-ported	Pneu-monia, deaths re-ported
			Cases, es-timated ex-pectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
<b>MOUNTAIN—continued</b>									
Colorado:									
Denver	272,031	1	8	2	0	1	1	0	3
Pueblo	43,519	0	2	4	0	0	0	0	3
New Mexico:									
Albuquerque	16,648	0	0	0	0	0	0	0	0
Arizona:									
Phoenix	33,890	0	0	0	0	0	0	0	0
Utah:									
Salt Lake City	126,241	1	2	0	0	0	2	8	1
Nevada:									
Reno	12,429	0	0	0	0	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Seattle	1315,685	3	3	1	0	0	0	3	—
Spokane	104,573	2	2	8	0	0	0	0	—
Tacoma	101,731	2	1	4	0	0	2	0	0
Oregon:									
Portland	273,621	4	3	6	0	0	0	3	2
California:									
Los Angeles	666,853	2	23	22	0	0	1	4	7
Sacramento	69,950	0	1	3	0	1	0	1	0
San Francisco	539,038	10	14	2	1	1	1	4	6

Division, State, and city	Scarlet fever		Smallpox			Tuber-cu-losis, deaths re-ported	Typhoid fever			Whoop-ing cough, cases re-ported	Deaths, all causes
	Cases, es-timated ex-pectancy	Cases re-ported	Cases, es-timated ex-pectancy	Cases re-ported	Deaths re-ported		Cases, es-timated ex-pectancy	Cases re-ported	Deaths re-ported		
<b>NEW ENGLAND</b>											
Maine:											
Portland	1	0	0	0	0	0	1	1	0	0	14
New Hampshire:											
Concord	0	0	0	0	0	1	0	0	0	1	6
Manchester	1	0	0	0	0	0	0	0	0	0	18
Nashua	0	0	0	0	0	0	0	0	0	0	8
Vermont:											
Barre	1	0	0	0	0	0	0	0	0	4	2
Burlington	1	0	0	0	0	0	0	0	0	0	4
Massachusetts:											
Boston	10	14	0	0	0	15	4	6	0	30	172
Fall River	1	0	0	0	0	1	2	1	0	3	19
Springfield	1	0	0	0	0	1	1	1	0	8	26
Worcester	2	13	0	0	0	3	0	3	0	9	38
Rhode Island:											
Pawtucket	0	1	0	0	0	1	0	0	0	0	—
Providence	2	4	0	0	0	4	1	0	0	2	—
Connecticut:											
Bridgeport	1	2	0	0	0	2	0	1	0	0	35
Hartford	1	1	0	0	0	3	2	0	0	3	33
New Haven	1	2	0	0	0	0	4	0	0	21	23
<b>MIDDLE ATLANTIC</b>											
New York:											
Buffalo	4	3	0	0	0	9	3	3	1	2	116
New York	23	10	0	0	0	81	43	63	6	76	1,071
Rochester	3	5	0	0	0	6	1	0	0	12	61
Syracuse	3	1	0	0	0	0	1	2	0	9	28
New Jersey:											
Camden	1	7	1	0	0	0	2	3	0	4	35
Newark	4	2	0	0	0	4	2	3	0	32	78
Trenton	1	0	0	0	0	1	2	1	0	0	33

<sup>1</sup> Population Jan. 1, 1920.<sup>2</sup> Pulmonary tuberculosis only.

## City reports for week ended August 22, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
<b>MIDDLE ATLANTIC—continued</b>											
Pennsylvania:											
Philadelphia	14	13	0	0	0	42	14	9	2	45	417
Pittsburgh	6	5	0	0	0	8	4	4	1	6	102
Reading	0	0	0	0	0	0	2	0	0	17	26
<b>EAST NORTH CENTRAL</b>											
Ohio:											
Cincinnati	3	4	0	0	0	9	3	4	1	2	122
Cleveland	7	5	1	0	0	9	6	6	1	65	158
Columbus	2	0	0	0	0	2	2	5	1	7	73
Toledo	6	3	0	0	0	6	2	4	2	4	69
Indiana:											
Fort Wayne	0	0	0	0	0	0	1	15	0	0	20
Indianapolis	2	2	1	0	0	3	3	1	1	18	81
South Bend	1	1	0	0	0	0	1	0	0	3	20
Terre Haute	0	0	1	0	0	1	0	1	0	0	21
Illinois:											
Chicago	24	25	1	0	0	32	6	4	0	71	565
Cicero	0	0	0	0	0	0	0	0	0	0	23
Springfield	0	0	0	0	0	2	1	0	0	0	
Michigan:											
Detroit	18	28	2	0	0	32	5	5	0	109	249
Flint	3	0	0	0	0	1	1	0	0	4	20
Grand Rapids	1	3	0	3	0	1	0	1	0	5	31
Wisconsin:											
Madison	0	2	0	0	0	0	0	0	0	0	4
Milwaukee	8	3	1	0	0	5	1	0	1	78	63
Racine	1	3	0	0	0	2	0	0	0	6	7
Superior	1	2	0	0	0	1	0	0	0	0	10
<b>WEST NORTH CENTRAL</b>											
Minnesota:											
Duluth	2	13	0	0	0	2	0	0	0	0	18
Minneapolis	7	16	2	0	0	7	2	0	0	4	84
St. Paul	3	7	1	0	0	1	1	1	1	21	47
Iowa:											
Davenport	0	0	0	0	0	0	0	0	0	0	
Saint City	0	1	1	3	0	0	0	0	0	0	
Waterloo	1	1	0	0	0	0	0	0	0	0	
Missouri:											
Kansas City	2	4	0	0	0	8	4	3	0	6	86
St. Joseph	0	1	0	0	0	0	1	0	0	0	23
St. Louis	5	19	0	0	0	12	8	14	1	21	212
North Dakota:											
Fargo	1	2	0	0	0	1	0	0	0	15	7
Grand Forks	1	0	0	0	0	0	0	0	0	6	
South Dakota:											
Aberdeen	0	0	0	0	0	0	0	0	0	0	
Sioux Falls	1	3	0	0	0	1	0	0	0	0	8
Nebraska:											
Lincoln	0	1	0	0	0	1	1	0	0	6	8
Omaha	1	3	1	0	0	2	0	2	1	3	45
Kansas:											
Topeka	1	1	0	0	0	0	2	1	0	2	12
Wichita	1	0	0	0	0	2	2	2	0	6	31
<b>SOUTH ATLANTIC</b>											
Delaware:											
Wilmington	0	0	0	0	0	4	0	0	0	0	22
Maryland:											
Baltimore	5	3	0	0	0	17	9	18	3	64	192
Cumberland	1	0	0	0	0	0	1	2	0	0	9
Frederick	0	0	0	0	0	0	0	0	0	0	5

## City reports for week ended August 22, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber-cu- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
<b>SOUTH ATLANTIC—continued</b>											
<b>District of Columbia:</b>											
Washington	3	2	0	0	0	5	6	3	1	18	106
<b>Virginia:</b>											
Lynchburg	0	1	0	0	0	1	1	1	0	0	4
Norfolk	0	0	0	0	0	5	2	0	0	0	
Richmond	2	4	0	0	0	5	3	4	1	1	41
Roanoke	0	1	0	0	0	0	3	2	0	2	9
<b>West Virginia:</b>											
Charleston	0	0	0	0	0	0	1	0	0	3	12
Huntington	0	1	0	0	0	0	1	2	0	0	
Wheeling	1	1	0	0	0	0	0	4	0	0	13
<b>North Carolina:</b>											
Raleigh	1	0	0	0	0	3	1	0	0	1	16
Wilmington	0	1	0	0	0	0	1	0	0	0	7
Winston-Salem	0	5	1	1	0	1	2	2	0	2	14
<b>South Carolina:</b>											
Charleston	0	0	0	0	0	4	2	7	0	0	32
Columbia	1	0	0	0	0	0	2	1	0	0	
Greenville	0	0	0	1	0	0	0	0	1	0	6
<b>Georgia:</b>											
Atlanta	3	2	1	0	0	0	4	9	1	1	67
Brunswick	0	0	0	0	0	0	0	1	0	0	
Savannah	0	0	0	0	0	0	1	0	0	0	23
<b>Florida:</b>											
St. Petersburg	0	0	0	0	0	0	0	0	0	0	29
Tampa	0	1	0	0	0	0	0	0	0	0	
<b>EAST SOUTH CENTRAL</b>											
<b>Kentucky:</b>											
Covington	0	0	0	1	0	0	0	0	0	0	21
Louisville	1	1	0	0	0	5	5	2	2	2	92
<b>Tennessee:</b>											
Memphis	1	0	0	0	0	8	6	19	1	1	69
Nashville	1	0	0	0	0	2	6	6	2	0	41
<b>Alabama:</b>											
Birmingham	2	4	0	6	0	6	7	0	1	0	56
Mobile	0	0	0	0	0	3	1	0	0	0	26
Montgomery	1	1	0	0	0	0	1	2	0	0	
<b>WEST SOUTH CENTRAL</b>											
<b>Arkansas:</b>											
Fort Smith	0	1	0	0	0	0	0	0	0	0	
Little Rock	1	0	0	0	0	1	2	9	0	0	
<b>Louisiana:</b>											
New Orleans	1	4	0	0	0	0	11	5	11	3	14
Shreveport	0	0	0	0	0	0	2	1	5	1	28
<b>Oklahoma:</b>											
Oklahoma	1	0	0	0	0	0	2	6	1	0	17
Tulsa	0	0	0	0	0	0	3	3	1	1	
<b>Texas:</b>											
Dallas	2	5	0	0	0	0	2	5	2	2	55
Galveston	0	0	0	0	0	0	1	0	0	0	13
Houston	0	1	0	1	0	0	4	1	0	0	64
San Antonio	0	0	0	0	0	0	9	1	2	1	59
<b>MOUNTAIN</b>											
<b>Montana:</b>											
Billings	0	4	0	0	0	1	0	0	0	0	5
Great Falls	1	2	0	1	0	0	1	1	0	1	8
Helena	0	0	0	0	0	0	1	0	0	0	5
Missoula	0	0	0	0	0	0	0	2	0	0	3
<b>Idaho:</b>											
Boise	0	0	0	0	0	0	0	0	0	0	4
<b>Colorado:</b>											
Denver	2	0	1	0	0	11	4	2	0	36	81
Pueblo	0	1	0	0	0	1	1	2	0	0	14

## City reports for week ended August 22, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber-cu-losis, deaths re-ported	Typhoid fever			Whoop-ing cough, cases re-ported	Deaths, all causes
	Cases, es-ti-mated ex-pectancy	Cases re-ported	Cases, es-ti-mated ex-pectancy	Cases re-ported	Deaths re-ported		Cases, es-ti-mated ex-pectancy	Cases re-ported	Deaths re-ported		
<b>MOUNTAIN—con.</b>											
New Mexico:											
Albuquerque	0	1	0	0	0	5	1	4	0	0	10
Arizona:											
Phoenix	0	—	—	0	0	2	—	0	0	2	11
Utah:											
Salt Lake City	1	0	0	0	0	0	1	4	1	15	29
Nevada:											
Reno	0	0	0	0	0	0	1	0	0	0	3
<b>PACIFIC</b>											
Washington:											
Seattle	3	3	2	1	—	—	1	3	—	13	—
Spokane	2	0	1	0	—	—	1	0	—	2	—
Tacoma	1	1	1	2	0	0	1	0	0	3	24
Oregon:											
Portland	3	2	4	0	0	4	1	4	0	0	—
California:											
Los Angeles	4	9	0	9	1	19	4	0	2	38	200
Sacramento	1	0	1	0	0	2	1	13	0	0	13
San Francisco	5	2	0	3	0	8	2	6	0	9	119

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Polio-myelitis (infan-tile paralysis)			Typhus fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, es-ti-mated ex-pectancy	Cases	Deaths	Cases	Deaths
<b>NEW ENGLAND</b>											
Massachusetts:											
Boston	0	0	0	0	1	0	2	1	0	0	0
Springfield	0	0	1	0	0	0	0	1	0	0	0
Rhode Island:											
Providence	0	0	0	0	0	0	0	3	0	0	0
Connecticut:											
Bridgeport	0	0	0	0	0	0	0	1	1	0	0
<b>MIDDLE ATLANTIC</b>											
New York:											
New York City	13	1	7	1	0	0	8	15	8	0	0
Rochester	0	0	0	1	0	0	0	0	0	0	0
New Jersey:											
Newark	0	0	2	0	0	0	0	1	0	0	0
Pennsylvania:											
Philadelphia	1	0	1	1	0	0	0	1	0	0	0
<b>EAST NORTH CENTRAL</b>											
Ohio:											
Cleveland	1	0	0	1	0	0	1	9	2	0	0
Toledo	0	0	0	1	0	0	0	0	0	0	0
Illinois:											
Chicago	1	1	0	0	0	0	6	7	1	0	0
Michigan:											
Detroit	1	0	2	1	0	0	1	1	0	0	0
<b>WEST NORTH CENTRAL</b>											
Minnesota:											
Duluth	1	0	0	0	0	0	0	3	0	0	0
Minneapolis	1	0	0	0	0	0	0	5	0	0	0
St. Paul	0	0	0	0	0	0	0	1	1	0	0
Missouri:											
Kansas City	0	0	0	0	0	0	0	6	4	0	0
St. Joseph	0	0	0	0	0	0	0	0	1	0	0

## City reports for week ended August 22, 1925—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		Typhus fever		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	Cases	Deaths
<b>WEST NORTH CENTRAL—continued</b>											
North Dakota:											
Fargo.....	0	0	0	1	0	0	0	0	0	0	0
Nebraska:											
Omaha.....	0	0	0	0	0	0	0	1	1	0	0
Kansas:											
Topeka.....	0	0	0	0	0	0	0	3	0	0	0
<b>SOUTH ATLANTIC</b>											
Maryland:											
Baltimore.....	0	0	0	0	0	1	2	0	0	0	0
District of Columbia:											
Washington.....	0	0	1	1	0	0	0	1	0	0	0
Virginia:											
Richmond.....	0	0	0	0	1	0	0	0	0	0	0
South Carolina:											
Charleston.....	0	0	0	0	0	0	0	0	1	0	0
Georgia:											
Atlanta.....	0	0	0	0	0	2	0	1	0	0	0
Savannah.....	0	0	0	0	0	1	0	0	0	0	0
<b>EAST SOUTH CENTRAL</b>											
Tennessee:											
Memphis.....	0	0	0	0	0	1	0	0	0	0	0
Alabama:											
Birmingham.....	0	0	0	0	0	0	0	1	0	0	0
Mobile.....	0	0	0	0	0	1	0	0	0	0	0
Montgomery.....	0	0	0	0	0	0	0	0	1	0	0
<b>WEST SOUTH CENTRAL</b>											
Louisiana:											
New Orleans <sup>1</sup> .....	0	0	0	0	0	0	0	2	1	0	0
Shreveport.....	0	0	0	0	0	3	0	0	0	0	0
<b>MOUNTAIN</b>											
Montana:											
Billings.....	0	0	0	0	0	0	0	1	0	0	0
Arizona:											
Phoenix.....	0	0	0	0	0	0	0	1	1	0	0
<b>PACIFIC</b>											
Washington:											
Seattle.....	0	0	0	0	0	0	0	2	0	0	0
Tacoma.....	0	0	0	0	0	0	0	1	0	0	0
California:											
Los Angeles.....	1	2	0	0	0	0	0	16	3	0	0
Sacramento.....	0	0	0	0	0	0	0	1	1	0	0
San Francisco.....	1	1	1	0	1	1	0	2	0	0	0

<sup>1</sup> 5 cases of dengue reported at New Orleans.

The following table gives the rates per hundred thousand population for 105 cities for the 10-week period ended August 22, 1925. The population figures used in computing the rates were estimated as of July 1, 1923, as this is the latest date for which estimates are available. The 105 cities reporting cases had an estimated aggregate population of nearly 29,000,000 and the 97 cities reporting deaths had more than 28,000,000 population. The number of cities included in each group and the aggregate populations are shown in a separate table below.

1961

September 11, 1925

*Summary of weekly reports from cities, June 14 to August 22, 1925—Annual rates per 100,000 population<sup>1</sup>*

DIPHTHERIA CASE RATES

	Week ended—									
	June 20	June 27	July 4	July 11	July 18	July 25	Aug. 1	Aug. 8	Aug. 15	Aug. 22
105 cities	119	116	93	96	79	78	78	87	80	70
New England	97	127	117	62	62	62	62	92	92	52
Middle Atlantic	166	163	96	127	97	91	92	83	78	73
East North Central	93	84	87	89	73	68	74	101	72	55
West North Central	133	114	131	93	85	106	100	107	113	102
South Atlantic	51	73	41	55	26	45	50	55	73	64
East South Central	6	34	6	23	11	11	11	29	34	63
West South Central	74	46	60	42	28	70	46	23	51	60
Mountain	191	105	181	105	124	115	153	128	162	76
Pacific	113	107	145	125	99	104	67	148	84	104

MEASLES CASE RATES

105 cities	434	303	228	193	159	105	73	53	48	31
New England	634	407	350	283	261	216	186	132	129	97
Middle Atlantic	544	382	258	249	199	128	77	69	57	38
East North Central	592	404	321	225	191	119	72	47	37	19
West North Central	87	60	31	35	29	19	29	11	30	6
South Atlantic	349	278	262	211	148	95	71	45	43	35
East South Central	114	132	97	120	80	63	29	11	17	6
West South Central	19	5	5	0	0	5	0	0	9	9
Mountain	76	95	38	57	29	38	105	20	19	29
Pacific	84	52	37	41	64	20	35	29	20	12

SCARLET FEVER CASE RATES

105 cities	165	117	96	90	61	57	56	53	59	53
New England	142	107	112	147	80	72	75	102	84	92
Middle Atlantic	145	100	79	81	45	43	37	33	36	23
East North Central	217	157	122	97	67	67	64	52	58	58
West North Central	328	184	168	143	108	122	124	120	137	147
South Atlantic	61	45	59	45	47	18	35	22	41	43
East South Central	160	91	74	126	80	29	63	63	40	34
West South Central	37	56	46	9	23	32	31	56	70	51
Mountain	143	210	105	153	86	162	86	39	95	67
Pacific	116	107	71	52	61	46	49	64	87	44

SMALLPOX CASE RATES

105 cities	36	25	14	16	15	10	10	9	7	6
New England	0	0	0	2	2	5	0	0	0	0
Middle Atlantic	1	0	1	0	1	0	0	0	0	0
East North Central	45	20	14	12	10	8	4	6	3	2
West North Central	60	37	17	21	17	12	15	9	11	6
South Atlantic	30	18	10	24	8	16	2	2	4	4
East South Central	200	132	63	80	46	40	23	51	23	40
West South Central	19	0	5	5	14	5	5	14	9	5
Mountain	19	29	29	19	19	0	57	20	10	10
Pacific	154	171	89	102	119	67	84	67	67	44

<sup>1</sup> The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1923.

<sup>2</sup> Cicero, Ill., not included. Report not received at time of going to press.

<sup>3</sup> Cicero, Ill., and Spokane, Wash., not included.

<sup>4</sup> Cicero, Ill., and Tampa, Fla., not included.

<sup>5</sup> Cicero, Ill., Waterloo, Iowa, and Helena, Mont., not included.

<sup>6</sup> Cicero, Ill., and Sioux City, Iowa, not included.

<sup>7</sup> Cicero, Ill., and St. Petersburg, Fla., not included.

<sup>8</sup> Waterloo, Iowa, not included.

<sup>9</sup> Sioux City, Iowa, not included.

<sup>10</sup> Tampa, Fla., not included.

<sup>11</sup> St. Petersburg, Fla., not included.

<sup>12</sup> Helena, Mont., not included.

<sup>13</sup> Spokane, Wash., not included.

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## Summary of weekly reports from cities, June 14 to August 22, 1925—Annual rates per 100,000 population—Continued

## TYPHOID FEVER CASE RATES

105 cities	Week ended—									
	June 20	June 27	July 4	July 11	July 18	July 25	Aug. 1	Aug. 8	Aug. 15	Aug. 22
	22	27	35	35	38	34	41	41	48	57
New England	20	17	22	25	32	22	22	27	40	32
Middle Atlantic	14	18	15	17	25	21	30	23	33	45
East North Central	4	9	10	14	12	8	10	21	19	31
West North Central	12	10	21	44	44	39	48	43	58	48
South Atlantic	49	71	66	59	55	53	66	59	91	111
East South Central	80	91	200	177	223	177	183	274	217	183
West South Central	130	148	246	185	134	172	178	130	102	134
Mountain	38	0	10	29	19	48	57	107	105	106
Pacific	6	20	22	17	32	29	46	17	44	64

## INFLUENZA DEATH RATES

105 cities	6	16	34	32	32	32	41	113	32	72
New England	2	7	2	0	0	0	0	5	0	0
Middle Atlantic	4	6	2	2	2	3	1	2	2	2
East North Central	7	15	15	22	23	11	10	23	23	11
West North Central	7	4	0	0	0	4	0	0	0	0
South Atlantic	6	2	6	0	4	4	2	6	0	0
East South Central	24	17	11	17	0	6	0	6	6	11
West South Central	10	10	10	10	10	0	0	5	0	10
Mountain	0	10	0	0	0	10	0	0	10	10
Pacific	4	4	4	0	4	0	0	0	0	8

## PNEUMONIA DEATH RATES

105 cities	81	166	258	261	257	250	461	1156	363	755
New England	62	60	45	45	50	52	55	37	30	40
Middle Atlantic	93	75	62	64	63	52	65	65	73	65
East North Central	81	42	45	59	47	40	52	38	51	43
West North Central	33	50	42	39	55	42	42	53	44	31
South Atlantic	77	96	75	67	51	55	63	73	81	64
East South Central	103	120	97	91	74	63	74	69	63	80
West South Central	92	76	61	61	76	66	111	71	87	82
Mountain	143	57	67	76	86	57	76	29	57	67
Pacific	65	53	82	74	45	65	69	78	90	53

\* Cicero, Ill., not included. Report not received at time of going to press.

\* Cicero, Ill., and Spokane, Wash., not included.

\* Cicero, Ill., and Tampa, Fla., not included.

\* Cicero, Ill., Waterloo, Iowa, and Helena, Mont., not included.

\* Cicero, Ill., and Sioux City, Iowa, not included.

\* Cicero, Ill., and St. Petersburg, Fla., not included.

\* Waterloo, Iowa, not included.

\* Sioux City, Iowa, not included.

\* Tampa, Fla., not included.

\* St. Petersburg, Fla., not included.

\* Helena, Mont., not included.

\* Spokane, Wash., not included.

\* Cicero, Ill., and Helena, Mont., not included.

Number of cities included in summary of weekly reports and aggregate population of cities in each group, estimated as of July 1, 1923

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases	Aggregate population of cities reporting deaths
Total	105	97	28,898,350	28,140,934
New England	12	12	2,098,746	2,098,746
Middle Atlantic	10	10	10,304,114	10,304,114
East North Central	17	17	7,032,535	7,032,535
West North Central	14	11	2,515,330	2,581,454
South Atlantic	22	22	2,566,901	2,566,901
East South Central	7	7	911,885	911,885
West South Central	8	6	1,124,564	1,023,013
Mountain	9	9	546,445	546,445
Pacific	6	3	1,797,830	1,275,841

## FOREIGN AND INSULAR

### PLAQUE ON VESSEL

*Steamship "Arcadia"—At Alexandria, Egypt, and Piræus, Greece.*—A case of plague was reported found on the steamship *Arcadia* at Alexandria, Egypt, July 27, 1925. The *Arcadia* left Alexandria July 21, arriving at Piræus, Greece, July 24. A case of plague was removed from the vessel on the day of arrival at Piræus, the vessel sailing on the same day on return trip to Alexandria.

*Plague at Piræus.*—Later information shows that two cases of plague had occurred on July 18 and 19, 1925, respectively, at Piræus.

### THE FAR EAST

*Reports for two weeks ended August 15, 1925.*—The following reports for the weeks ended August 8 and August 15, 1925, were transmitted by the far eastern bureau of the health section of the League of Nations, located at Singapore, to the headquarters at Geneva:

WEEK ENDED AUGUST 8, 1925

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Bombay		1		0	3	2
Madras		0		0	28	8
Rangoon		19		0	5	1
Karachi		1	0	0	0	0
Negapatam		0	0	0	0	0
Singapore	0	0	0	0	0	0
Port Swettenham	0	0	0	0	0	0
Penang	0	0	0	0	0	0
Batavia	0	0	0	0	0	0
Soerabaya	0	0	0	0	0	0
Samarang	0	0	0	0	0	0
Belawan Deli	0	0	0	0	0	0
Macassar	0	0	0	0	0	0
Sandakan (North Borneo)	0	0	0	0	0	0
Kuching (Sarawak)	0	0	0	0	3	1
Bangkok	1	1	0	0	0	0
Saigon and Cholon	0	0	0	1	0	0
Hongkong	0	0	0	0	0	0
Shanghai	0	0	31	13	0	0
Manila	0	0	0	0	0	0
Colombo	1	1	0	0	0	0
Nagasaki	0	0	0	0	0	0
Yokohama	0	0	0	0	0	0
Simonoseki	0	0	0	0	0	0
Kobe	0	0	0	0	0	0
Moji	0	0	0	0	0	0
Osaka	0	0	0	0	3	0
Keelung (Formosa)	0	0	0	0	0	0
Fou-San-Po (Korea)	0	0	0	0	0	0
Adelaide	0	0	0	0	0	0
Brisbane	0	0	0	0	0	0
Fremantle	0	0	0	0	0	0
Melbourne	0	0	0	0	0	0
Sydney	0	0	0	0	0	0
Suez	0	0	0	0	0	0
Port Said	2	0	0	0	0	0
Mombasa (Kenya)	0	0	0	0	0	0
Massaua (Eritrea)	0	0	0	0	0	0
Djibuti	0	0	0	0	0	0
Durban (Natal)	0	0	0	0	0	0
Cape of Good Hope	0	0	0	0	0	0

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WEEK ENDED AUGUST 15, 1925

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta				6	7	7
Bombay		2		0	1	
Madras		0		2	21	12
Rangoon		23		1	2	0
Karachi		0	0	0	0	0
Negapatam		0	0	0	0	0
Singapore	0	0	0	0	0	0
Port Swettenham	0	0	0	0	0	0
Penang	0	0	0	0	0	0
Batavia	0	0	0	0	0	0
Soerabaya <sup>1</sup>	1	1	0	0	1	0
Samarang	0	0	0	0	0	0
Belawan Deli	0	0	0	0	0	0
Macassar	0	0	0	0	0	0
Sandakan <sup>1</sup> (North Borneo)	0	0	0	0	0	0
Kuching (Sarawak)	0	0	0	0	4	0
Bangkok	0	0	0	0	0	0
Saigon and Cholon	0	0	0	0	0	0
Hongkong	0	0	0	0	0	0
Shanghai	0	0	32	19	0	0
Manila	0	0	0	1	0	0
Colombo <sup>1</sup>	1	1	0	0	0	0
Nagasaki	0	0	0	1	0	0
Yokohama	0	0	0	0	0	0
Simonoseki	0	0	0	0	0	0
Möji	0	0	0	0	0	0
Kobe	0	0	0	0	0	0
Osaka	0	0	0	0	0	0
Kueiung (Formosa)	0	0	0	0	0	0
Fou-San-Po (Korea)	0	0	0	0	0	0
Adelaide	0	0	0	0	0	0
Brisbane	0	0	0	0	0	0
Fremantle	0	0	0	0	0	0
Melbourne	0	0	0	0	0	0
Sydney	0	0	0	0	0	0
Port Said	1	0	0	0	0	0
Mombasa (Kenya)	0	0	0	0	0	0
Massaua (Eritrea)	0	0	0	0	0	0
Djibouti	0	0	0	0	0	0
Durban (Natal)	0	0	0	0	0	0
Cape of Good Hope	0	0	0	0	0	0

<sup>1</sup> No plague infection found among rats examined.

## CEYLON

*Cholera nostras*—Colombo—July 19–25, 1925.—During the week ended July 25, 1925, three deaths from cholera nostras were reported at Colombo, Ceylon.

## CHINA

*Cholera*—Shanghai.—Cholera was reported at Shanghai, China, during the week ended August 1, 1925. From that time to August 15, 1925, 82 cases with 39 deaths were reported.

## EGYPT

*Plague*—July 30–August 5, 1925—Summary (comparative).—During the week ended August 5, 1925, one case of plague was reported in Egypt. The case occurred at Port Said. The total number of cases reported from January 1 to August 5, 1925, was 90, the number reported for the corresponding period in the year 1924 being 344.

## GREECE

*Mortality from malaria—Saloniki—June 30—July 20, 1925.*—During the three-week period ended July 20, 1925, 51 deaths from malaria were reported at Saloniki, Greece. Population, census, exclusive of refugees, 175,000. Of these latter, 145,000 were stated to be quartered in the city and 49,000 in concentration camps outside of city.

*Plague—Athens and Piræus, August 1-14, 1925.*—During the two weeks ended August 14, 1925, 16 cases of plague were reported at Athens and Piræus, Greece. Of these, 9 cases occurred at Athens and 7 cases at Piræus.

## LIBERIA

*Yellow fever—Monrovia.*—Recent information indicated the presence of yellow fever in Monrovia, Liberia. Under date of August 22, 1925, the following cablegram was received from that city: "Yellow fever has not been found outside of Monrovia. There is no epidemic. No cases or deaths in Monrovia now."

## MADAGASCAR

*Plague—Tamatave, June 1-7, 1925—Tananarive Province, June 16-30, 1925.*—Plague has been reported in Tananarive Province, Madagascar, as follows: At Tamatave (seaport), June 1 to 7, 1 fatal case; Province of Tananarive, June 16 to 30, 1925, 16 cases with 15 deaths, of which 7 cases were bubonic in type, 3 pneumonic, and 6 septicemic.

## MEXICO

*Epidemic smallpox—El Hule and other localities, State of Oaxaca, August 14, 1925.*—Under date of August 14, 1925, epidemic smallpox was reported present at El Hule and other localities in the State of Oaxaca, Mexico.

## PERSIA

*Epidemic relapsing fever—Province of Khorassan, December, 1924—July, 1925.*—Recent information shows the presence, in July, 1925, of epidemic relapsing fever occurring in the Province of Khorassan, on the Afghan frontier of Persia. The cases occurred in two localities in the Bakharz district and at a few localities in the neighboring districts of Turbat-i-Shaik, Jam, and Khaf, with an estimated number of 1,000 deaths.

An epidemic disease of undetermined form was stated to have been present in the district of Bakharz, with 242 reported deaths, during December, 1924. The symptoms were fever with headache, pain in the chest, jaundice, hemorrhages from the nose, eyes, and mouth, and, in fatal cases, death within 30 hours from onset.

## PERU

*Plague—Lima, August, 1925.*—Local press notices dated August 14, 1925, show the prevalence of plague at Lima, Peru, with 14 cases reported at the lazaretto August 13. Dead rats were also reported.

*Plague at Callao.*—Under the same date the occurrence of plague cases was reported at Callao.

*Callao.*—Previous press reports (July) state that plague was present in Callao.

## UNION OF SOUTH AFRICA

*Plague—Animals concerned in transmission.*<sup>1</sup>—A memorandum on plague and its cause and prevention, issued under date of February 1, 1925, by the department of public health of the Union of South Africa, states that the rodents mainly concerned in the continuation and spread of plague are, in towns and villages, the black rat, the brown rat, and the house mouse, and in country districts, the gerbille, multimammate mouse, large-eared mouse, striped mouse, karoo rat, water rat, ground squirrel or bushy-tailed meerkat, spring hare, cape hare, and Zulu hare. The cat, dog, mongoose, and suricat also sometimes contract plague, but are less susceptible than the rodents.

The following examples of spread of infection are typical:

(a) Mrs. A, a farmer's wife, became infected on a farm where gerbilles, meerkats, and hares had been found dead in the veldt some months before. She developed the septicemic form of the disease, and before she died was kissed by her husband, son, and daughter-in-law. All three contracted plague, developed the pneumonic form of the disease, and died within one week.

(b) At a farm three members of one household became infected with plague of the pneumonic type from two others who had commenced with bubonic plague and later developed pneumonic symptoms. Lung infection here was doubtless due either to sputum containing plague bacilli being coughed into the faces or onto the hands of the attendants or to direct infection through kissing the patient.

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended September 11, 1925<sup>2</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
China:				
Shanghai.....	July 26-Aug. 15.....	82	39	
India:				
Bombay.....	July 5-18.....	5	4	
Madras.....	July 19-Aug. 1.....	4	3	
Philippine Islands:				
Manila.....	July 20-26.....	6		May 3-23, 1925: Cases, 14,592; deaths, 8,900. Apr. 26-June 27, 1925: Cases, 33,647; deaths, 19,930. (Corrected figures.)

<sup>1</sup> Data from "Health," Vol. III, No. 4, issued by the Australian Department of Health.

<sup>2</sup> From medical officers of the Public Health Service, American consuls, and other sources.

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## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended September 11, 1925—Continued

## PLAQUE

Place	Date	Cases	Deaths	Remarks
British East Africa:				
Uganda:				
Entebbe	Apr. 1-30	57	49	
Do.	May 1-31	72	69	
Ceylon:				
Colombo	July 12-25	4	4	
Egypt:				
Port Said	Aug. 5-6	2		
France:				
Marseille	Aug. 18	2		
Greece:				
Athens	Aug. 1-14	16	4	Including Piraeus.
Hawaii:				
Honokaa	Aug. 7	1		
India:				
Bombay	July 5-18	4	2	
Madras Presidency	June 28-Aug. 1	20	7	
Madagascar:				
Tamatave	June 1-7			
Tananarive Province	June 16-30	16	15	Bubonic, 7 cases; pneumonic, 3; septicemic, 6. Deaths: Bubonic, 7; pneumonic, 2; septicemic, 6.
Peru:				
Callao	July, 1925			Present. Press reports.
Cafeite	Aug. 1925			Do.
Lima	Aug. 14	14		Press reports.
Siam:				
Bangkok	June 23-July 11	2	2	
Straits Settlements:				
Singapore	July 12-18	1	1	
Tunis:				
Tunis				Aug. 12-18, 1925: Plague rodent.
On vessel:				
Steamship Arcadia	July 24-27	2		At Piraeus, Greece, from Alexandria, Egypt.

## SMALLPOX

Brazil:				
Rio de Janeiro	July 10-25	11	7	
British East Africa:				
Mombasa	July 5-18	21		
Tanganyika	June 14-20	1		
Do.	June 21-27	47	3	
Bulgaria:				
Sofia	Aug. 6-12	1		
Canada:				
Alberta—				From Crossfield, Alberta.
Calgary	Aug. 2-8	1		
China:				
Foochow	July 12-18			
Manchuria—				
Dairen	July 13-19	2	1	
Tientsin	July 12-18	1		Reported by British municipality.
India:				
Bombay	July 5-18	9	7	
Madras	July 19-Aug. 1	52	22	May 3-23, 1925: Cases, 13,866; 3,322. (Corrected figures.) Apr. 26-June 27, 1925: Cases, 37,107; deaths, 9,152. (Corrected figures.)
Mexico:				
Mexico City	Aug. 9-15	1		
Oaxaca, State	Aug. 14			
San Luis Potosi	Aug. 16-22		1	
Portugal:				
Oporto	Aug. 9-15	1		
Siam:				
Bangkok	June 28-July 11	2	1	Epidemic at El Hule and other localities.

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## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received During Week Ended September 11, 1925—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Spain:				
Malaga	Aug. 9-15		5	
Straits Settlements:				
Singapore	July 5-11	1	1	
Tunis:				
Tunis	Aug. 5-11	5	7	

## TYPHUS FEVER

Tunis:				
Tunis	Aug. 12-18	1	1	

## YELLOW FEVER

Liberia:				
Monrovia	Aug. 7	4		

Reports Received from June 27 to September 4, 1925<sup>1</sup>

## CHOLERA

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers	May 11-20	1		
Ceylon:				
Colombo	May 10-16	2	2	
India:				
Bombay	May 10-June 27	2	1	
Do.	June 28-July 4	2	2	
Calcutta	May 3-9	58	49	
Do.	May 17-23	79	61	
Do.	June 14-20	12	11	
Do.	July 5-11	9	7	
Madras Presidency	June 6-20	4	1	
Do.	July 5-19	2	2	
Rangoon	May 3-June 6	22	15	Feb. 8-14, 1925: Cases, 2; deaths, 2. (Received out of date.)
Do.	June 14-27	12	8	
Do.	June 28-July 18	1	2	
Indo-China:				
Saigon	May 4-June 7	4	3	
Japan:				
Yokohama	Sept. 2	5	3	
Philippine Islands:				
Albay—				
Tabaco	June 14-20	1	1	
Bulacan	do	1	1	
Do.	June 28-July 18	3	2	
Camarines Sur				
Lagonoy	July 3-9	1		
Leyte	June 6-12	2	1	
Manila	July 8-14	1	1	
Do.	June 15-28	3		
Mountain Province	June 29-July 12	6	1	June 1-Aug. 8, 1925: Cases, 17.
Siam:				
Bangkok	June 23-29	1	1	
Turkey:				
Constantinople	Apr. 29-June 27	9	4	
	May 16-22	1		

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**
**Reports Received from June 27 to September 4, 1925—Continued**
**PLAQUE**

Place	Date	Cases	Deaths	Remarks
Brazil:				
Bahia.....	May 3-June 13.....	5	4	
British East Africa:				
Uganda.....	Feb. 1-28.....	28	28	
Entebbe.....	May 4-June 4.....	78	73	
Ceylon:				
Colombo.....	May 10-June 30.....	11	10	
Do.....	June 28-July 11.....	5	3	
China:				
Foochow.....	May 24-31.....			Reported present in epidemic form.
North Manchuria.....	May 27.....	2	1	
Ecuador:				
Guayaquil.....	June 1-15.....	1	1	May 16-June 30, 1925: Rats examined, 30,347; found infected, 95. July 1-15, 1925: Rats taken, 9,926; rats found infected, 16.
Egypt.....				June 1-July 15, 1925: Cases, 88, Corresponding period 1924—cases, 328. Bubonic.
City—				
Alexandria.....	June 17-24.....	2	2	
Port Said.....	June 17-July 8.....	6	3	
Do.....	July 30-Aug. 5.....	1		
Suez.....	June 14-27.....	3	2	Do.
Province—				
Assiout.....	June 5.....	1	1	
Beni-Souef.....	June 10-16.....	8	4	
Charkieh.....	June 6-8.....	1	1	
Kena.....	June 17.....	1	1	
Minia.....	June 6-17.....	3	2	
Gold Coast.....	March-April.....	3	3	
Greece:				
Athens.....	July 1-31.....	17	4	
Pireaus.....	July 18-19.....	2		
Hawaii:				
Honokaa.....				June 28, 1925: Plague-infected rat trapped at Honokaa Plantation.
Kukuhaele.....	July 31.....			Plague-infected rat.
India.....				Apr. 26-June 27, 1925: Cases, 10,166; deaths, 8,913. Corrected figures.
Bombay.....	Apr. 26-June 27.....	62	59	
Do.....	June 28-July 4.....	5	4	
Calcutta.....	May 30-June 6.....	1	1	
Do.....	July 5-11.....	1	1	
Karachi.....	May 18-June 6.....	4	3	
Madras.....	May 10-June 30.....	15	8	
Rangoon.....	May 3-June 27.....	113	95	Feb. 8-14, 1925: Cases, 13; deaths, 13. (Received out of date.)
Do.....	June 28-July 4.....	20	18	
Indo-China:				
Cochin-China—				
Saigon.....	Apr. 20-June 21.....	3	3	Including 100 square kilometers of surrounding country.
Iraq:				
Bagdad.....	May 24-June 6.....	9		
Do.....	June 21-27.....	5	1	
Java:				
Batavia.....	May 6-June 19.....	32	31	
Do.....	July 5-10.....	19	19	In Province.
Cheribon.....	Apr. 2-June 13.....		78	Epidemic in several localities.
Pasoorcean Residency.....	Mar. 7-May 25.....			
Pekalongan.....	Apr. 9-June 13.....		86	
Soerabaya.....	May 7-27.....	3	3	
Soerakarta Residency.....	May 28.....			Epidemic at Kalidgambe.
Tegal.....	Apr. 2-16.....		36	
Do.....	May 24-June 13.....		16	
Madagascar:				
Province—				
Itasy.....	Apr. 1-15.....	1	1	
Tananarive.....	Apr. 1-June 15.....	216	185	
Town—				
Tamatave (port).....	Apr. 1-15.....	2		
Tananarive Town.....	Apr. 16-May 31.....	5	5	
Mauritius.....				April, 1925: One case.
Nigeria:				
Do.....	December, 1924.....	17	13	
Do.....	January, 1925.....	10	6	
Do.....	March-April.....	18	14	

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## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

Reports Received from June 27 to September 4, 1925—Continued

## PLAQUE—Continued

Place	Date	Cases	Deaths	Remarks
Russia:				
Kalmik District	May 19-31	10	8	
North Caucasus	June 6-7	2	2	
Urals	May 25-June 3	2	2	In laboratory worker and contact. Locality, Province of Bukeevsk.
Siam:				
Bangkok	Apr. 26-June 20	13	11	
Straits Settlements:				
Singapore	May 3-30	9	9	
Do.	June 28-July 4	1	1	
Turkey:				
Constantinople	May 25-31	1		
Union of South Africa:				
Cape Province—				
Kimberly	June 14-20	1	1	In a Malay camp.
Do.				One plague-infected house mouse.
Orange Free State—				
Boshof District	June 28-July 4	1	1	Native.
On vessel:				
Steamship Efstratios Ca-voundis.	July 7-11	4	1	At Alexandria, Egypt. Vessel arrived July 7, 1925. Regular route, ports in Syria, Greece, and Port Said. Dead rats reported found on board.

## SMALLPOX

Algeria:				
Algeria	May 1-June 30	43	2	
Do.	July 1-20	28		
Constantine	do	15		
Brazil:				
Bahia	June 28-July 25	4	2	
Pernambuco	Apr. 26-May 30	40	21	
Do.	June 7-27	5	3	
Do.	July 5-18	1	1	
Porto Alegre	June 14-20		1	
Rio de Janeiro	May 9-June 27	5	1	
Do.	June 28-July 18	18	10	
British East Africa:				
Kenya—				
Mombasa	Apr. 19-June 20	27	13	
Mairobi	May 3-9	3	2	
Tanganyika Territory	Apr. 5-May 23	82	24	
Uganda	Feb. 1-28	2		
British South Africa:				
Northern Rhodesia	Apr. 28-May 4	3		
Southern Rhodesia	June 11-July 1	2		
Canada:				
British Columbia—				
Vancouver	June 1-28	7		
Do.	July 6-Aug. 9	10		
New Brunswick—				
Restigouche County	June 1-30	1		
Ontario				
Galt	June 14-20	2		
Kingston	do	1		
Quebec				
Quebec	July 26-Aug. 1	2	2	
Saskatchewan—				
Regina	May 24-30	3		
China:				
Amoy	May 17-June 30		7	
Do.	July 12-25			
Antung	May 11-July 5	8		
Do.	July 26	1		
Canton	May 10-June 13			
Chungking	May 3-30			
Foochow	May 9-June 20			
Hongkong	Apr. 19-June 13	15	12	
Manchuria—				
Dairen	Apr. 13-June 28	115	17	
Do.	June 28-July 5	1	1	
Harbin	May 13-June 2	2		

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**
**Reports Received from June 27 to September 4, 1925—Continued**
**SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Nanking	May 9-July 25			Present.
Shanghai	May 3-June 6	5	2	
Do.	July 6-25	1	1	
Swatow	May 17-July 11			Stated to be endemic.
Tientsin	May 9-June 6	3		
Chosen:				
Seoul	May 1-June 30	2		
Egypt:				
Alexandria	May 21-27	1	1	
Cairo	Mar. 19-May 13	5		
France				February-May, 1925: Cases, 77.
Paris	May 21-31	1		
Germany:				
Baden (state)	July 12-25	2	1	
Stuttgart	July 5-11	3	1	
Gold Coast				January-April, 1925: Cases, 367; deaths, 29.
Great Britain:				
England and Wales				
Birmingham	June 7-13	1		May 24-June 27, 1925: Cases, 441.
Cardiff	June 14-20	1		June 28-Aug. 1, 1925: Cases, 353.
Do.	Aug. 2-8	14	8	
Newcastle-on-Tyne	May 31-June 27	4		
Do.	June 28-Aug. 8	8	1	
Greece				January-May, 1925: Cases, 46; deaths, 8.
Athens	May 1-31		2	
Do.	June 24-30	27	3	
Do.	July 1-31	14	1	
Hungary:				
Budapest	July 5-18	13		
India				
Bombay	Apr. 26-June 27	156	115	Apr. 26-June 27, 1925: Cases, 37,107; deaths, 9,152. Corrected figures.
Do.	June 28-July 4	6	3	
Calcutta	May 3-9	109	100	
Do.	May 17-23	75	61	
Do.	May 31-June 20	88	81	
Do.	July 5-11	12	8	
Karachi	May 18-June 27	6	1	
Do.	June 28-July 4	1	1	
Madras	May 18-June 27	152	66	
Do.	June 28-July 18	68	25	
Rangoon	May 3-June 27	207	99	
Do.	June 28-July 4	2	1	
Indo-China:				
Cochin-China—				
Saigon	Apr. 20-May 21	13	9	Including 100 square kilometers of surrounding country.
Iraq				
Bagdad	Apr. 26-June 20	4	1	Jan. 11-May 30, 1925: Cases, 136; deaths, 46.
Italy				
Jamaica	Dec. 28-May 30	72		
Kingston	Apr. 26-June 27	19		Apr. 26-June 27, 1925: Cases, 110.
Do.	June 28-Aug. 1	22		June 28-Aug. 1, 1925: Cases, 159 (reported as alastrim). Reported as alastrim.
Japan:				Do.
Kobe	May 24-June 27	2		
Nagasaki	May 15-21	2		
Do.	July 6-19	1	1	
Taiwan	July 1-10	1		
Tokyo	June 14-20	1		
Yokohama	May 25-June 12	3		
Java:				
Batavia	May 2-June 26	2		
Do.	July 4-10	1		
Brebes	Apr. 22-28	1		
Cheribon	Apr. 16-22		1	
Pekalongan	Apr. 2-8	1		
Rembang Residency	Apr. 23			Epidemic at Kawedanan.
Soerabaya	Apr. 16-June 27	304	41	
South Bantam	Apr. 16-22	1		
Tegal	Mar. 29-May 2	2	1	
Latvia				May-June, 1925: Cases, 4.
Lithuania				
Malta	June 1-30	9		February-April, 1925: Cases, 5.
Do.	July 1-31	5		

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## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

## Reports Received from June 27 to September 4, 1925—Continued

## SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Mexico:				
Durango	do		11	
Do	do		13	
Guadalajara	June 2-29		10	
Do	June 20-Aug. 17		15	
Mexico City	May 24-June 27	12		Including municipalities in Federal district.
Do	July 5-11	3		Do.
Do	July 26-Aug. 8	6		
Tampico	June 1-10		1	
Do	July 1-31	4	2	
Morocco:				
Tangier	May 17-June 5			Present among natives.
Nigeria:				December, 1924: Cases, 40; deaths, 16.
Do				January-April, 1925: Cases, 1,377; deaths, 123.
Persia:				
Teheran	Mar. 21-May 21		29	
Peru:				
Arequipa	June 1-30		1	
Poland:				Mar. 1-May 9, 1925: Cases, 23.
Portugal:				
Lisbon	Apr. 26-June 27	36	6	
Do	June 28-Aug. 1	34	14	
Oporto	June 14-20	1		
Do	July 19-25	4		
Rumania:				January-February, 1925: Cases, 20.
Russia:				December, 1924: Cases, 1,000
				January-March, 1925: Cases, 2,457. Later than previously published reports.
Siam:				
Bangkok	Apr. 26-June 27	27	19	
Spain:				
Malaga	May 24-June 20		15	
Do	July 5-Aug. 1		13	
Valencia	May 31-June 27	3	1	
Straits Settlements:				
Singapore	May 17-23	1		
Switzerland:				
Berne	June 7-13	1		
Lucerne	June 14-20	4		
Syria:				
Beirut	Apr. 21-30	1		
Tripoli:				Jan. 3-April, 1925: Cases, 14.
Tunis:				
Tunis	May 6-June 30		46	
Do	July 1-Aug. 4		20	
Turkey:				
Constantinople	May 16-22	2		
Union South Africa:				Outbreaks.
Cape Province	May 24-July 11			Do.
Port Elizabeth	Apr. 18-25	8	1	December, 1924: Cases, 8.
Transvaal				February-March, 1925: Cases, 4.
Uruguay:				
Do	May 3-June 6			

## TYPHUS FEVER

Algeria:				
Algiers	May 11-20	6	2	In vicinity, 12 cases. Isolated.
Do	July 1-20	13	7	
Constantine	July 1-10	17		District.
Bulgaria:				November-December, 1924: 1 case. January-March, 1925: Cases, 36; deaths, 2.
Sofia	May 28-June 3	2	2	
Chile:				
Valparaiso	May 10-July 18		9	
China:				
Manchuria—Harbin	May 19-June 2	2		April, 1925: 1 case.
Czechoslovakia				

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**
**Reports Received from June 27 to September 4, 1925—Continued**
**TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Egypt:				
Alexandria	May 7-June 3	3	1	
Do	July 9-15	1		
Cairo	Mar. 26-May 13	6	4	
Port Said	May 14-20	1	1	
Do	July 30-Aug. 5	2		
Estonia				Apr. 1-May 30, 1925: Cases, 6.
Great Britain:				
Scotland—				
Greenock	Aug. 6-18	7		
Greece				January-May, 1925: Cases, 54; deaths, 6.
Athens	May 1-31		2	
Kalamata	Apr. 1-30		2	
Patras	June 23-July 4		2	
Iraq:				
Bagdad	July 12-18	1		
Ireland:				
Cork County	Aug. 25	3		
Latvia				April-June, 1925: Cases, 26.
Liepāja	July 14-20	1		
Lithuania				March-April, 1925: Cases, 116; deaths, 5.
Méjico:				
Mexico City	May 24-June 6	24		
Do	June 28-Aug. 1	39		
San Luis Potosí	June 28-July 4		1	
Morocco				January-May, 1925: Cases, 362. Later than previously published reports.
Palestine:				
Dagania	July 21-27	1		
Ekron	do	1		
Jaffa District	June 2-8	2		
Majdal	May 26-June 8	3		
Ramleh	May 19-25	1		
Safad	June 9-15	1		
Do	July 21-27	1		
Tel Aviv	do	1		
Persia:				
Teheran	Apr. 21-May 21		1	
Peru:				
Arequipa	Apr. 1-June 30		3	
Poland:				
Oporto	May 31-June 6	1		
Do	July 5-11	1		
Rumania:				
Constantza	May 1-31	1		
Russia				
Spain:				
Valencia	June 7-13		1	
Tunis:				
Tunis	May 21-June 17	16	8	
Do	July 8-28	9	4	
Turkey:				
Constantinople	May 11-31	7	2	
Union of South Africa:				
Cape Province	Apr. 19-July 4	39	5	
Natal	May 3-July 11	14		
Durban	Feb. 1-July 4	18		
Orange Free State	Feb. 1-June 27	26	4	
Hoopstad	July 5-11			
Transvaal:	do	11	2	Outbreaks.
Yugoslavia:				
Zagreb	May 8-21	7	1	

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**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**

**Reports Received from June 27 to September 4, 1925—Continued**

**YELLOW FEVER**

Place	Date	Cases	Deaths	Remarks
Gold Coast.....	Apr. 1-30.....	1	.....	
Ivory Coast: Lahou.....	June 1-10.....	1	1	
Nigeria: Ibadan.....	Apr. 24-30.....	1	.....	
Lagos.....	Apr. 29-May 5.....	4	1	

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